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ABSTRACT

This document is a collection of 12 issues of a monthly newsletter on public policy and postsecondary education opportunity trends. Each issue contains one or two main articles providing an analysis of research on trends in postsecondary education. The major articles in these issues are: (1) "Children, Family Income and College Affordability"; (2) "Whose Responsibility Is It? Shifting Responsibilities for Financing Higher Education from Government to Individuals"; (3) "Choose the Suburbs...Maybe: Chance for College by Metropolitan Status"; (4) "Up, Up and Away...Institutional Charges"; (5) "Financial Need of College Freshmen Under the New Federal Methodology"; (6) "State Financial Aid Grant Allocation Models 1993-94"; (7) "State Need-Based Grant Coverage of Pell Grant Recipients"; (8) "State Tax Fund Appropriations for Higher Education Continued 15 Year Declines in 1993-94"; (9) "Hispanic Educational Progress: turning the Corner, Bus So Far To Go..."; (10) "State Student Incentive Grant Program: On the Chopping Block, Again"; (11) Every Year...More Unequal: Family Income Differences Influence Educational Opportunity at Every Step Toward Bachelor's Degree"; (12) "25 Year Slide...Where Will It End? State Colleges and Universities Share of State Government Expenditures Declines Further in 1992"; (13) "For Most...But Not for All: College Continuation Rate for Recent High School Graduates Reached Record in 1993"; (14) "Academic Preparation for College by Family Income Background"; (15) "Passing...The Buck: Restructuring Higher Education Finance; Shifting Financial Responsibility from Taxpayers to Students"; (16) "Part-Time College Enrollment: It's Mostly a Matter of Age"; (17) "FY1995 State Appropriations for Higher Education: Looking Better, But That isn't Saying Much"; (18) "Biting the Hand...that Feeds: Federal Income Taxes Paid by College Educated Workers 1970 to 1991"; (19) "Raising Tuitions Tuitions...To Build Prisons: Infatuation with Incarceration"; (20) "Chance for College by Age 19 by State in 1992"; (21) "Retrenchment in Allocation of State Resources to Public Higher Education Paused in FY1995"; (22) "Going Way Away...to College: Interstate Migration of College Freshmen"; and (23) "Reach Out...and Touch Someone: TRIO Outreaching." The first of these issues contains an index to issues 1-18. (JB)

ED 377 803

Postsecondary Education

OPPORTUNITY

The Mortenson Report on Public Policy Analysis of Opportunity for Postsecondary Education

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Postsecondary Education
OPPORTUNITY

The Mortenson Report on Public Policy Analysis of Opportunity for Postsecondary Education

Number 19 | Iowa City, Iowa | January 1994

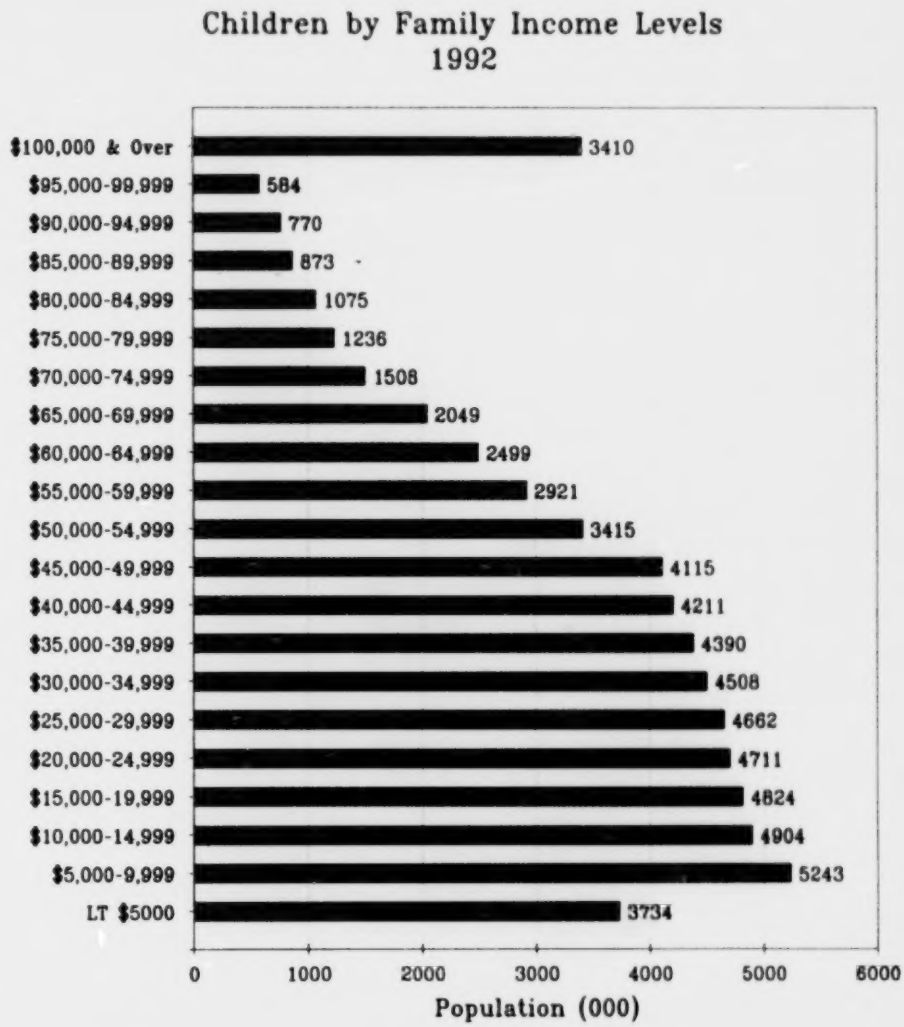
Children, Family Income and College Affordability

Fact #1: *For 1993-94, the lowest priced college type is a public community college where average attendance costs are $5,372 for a resident student, according to The College Board.*

Fact #2: *Under the new federal methodology for needs analysis for 1993-94, an expected family contribution of $5,372 corresponds to a family income of about $52,000.*

Fact #3: *According to 1992 family income data from the Census Bureau, approximately 70 percent of all children live in families with incomes below $52,000.*

The large proportion of children being raised in families with insufficient income to be able to afford the least expensive type of college education is one indication of the importance of student financial aid programs to financing higher educational opportunity for American youth.



In the following analyses, we examine and compare the incomes of America's families with children to the direct and indirect costs of college attendance. The results clearly show that if children are to be able to finance the college educations that offer them access to a decent standard of living then extensive improvements to current student financial aid programs are required.

This analysis focuses first on the incomes of families with children to illustrate several important insights into the characteristics of children living in low to middle income families. Then this analysis explores the relationship between family income, the expected family contribution that results from the new Federal Methodology, and college attendance costs. Finally we bring these two analyses together to identify the financial needs of children to finance different types of higher education.

Children by Family Income

In 1992 the Census Bureau found through the Current Population Survey approximately 65.4 million children living in 35.5 million families. Under Census Bureau definitions children are persons between the ages of zero and 17, and families are two or more people related by blood or marriage that are living together.

U.S. Bureau of the Census, Current Population Reports, Series P60-184, *Money Income of Households, Families, and Persons in the United States: 1992*, U.S. Government Printing Office, Washington, D.C., 1993.

Families are of three types: married couple families, male householder with no wife present, and female householder with no husband present. The number of families of each type as of March of 1993 was as follows:

Married couple:	25,714,000
Male householder:	1,549,000
Female householder:	8,230,000

In 1992 median family income for families with children was $35,872, compared to median family income for families without children of $37,819.

The distribution of children by the income of the families in which they live is shown on the first page of this newsletter. For example, there are 3.4 million children living in families with incomes of $100,000 or more, and 3.7 million children living in families earning less than $5000 per year. About 69 percent of all children live in families earning less than $50,000 per year.

Children in Poverty

In 1992, 13.9 million children were living in families whose incomes placed them below the poverty line. This was 21.1 percent of all children living in families.

Poverty thresholds are determined by family size and number of related children under 18 years. The weighted average thresholds for family units of different sizes were the following in 1992:

One person:	$7,143
Under 65 years	$7,299
65 and over	$6,729
Two persons:	$9,137
Householder under 65	$9,443
Householder 65 & over	$8,487
Three persons	$11,186
Four persons	$14,335
Five persons	$16,592
Six persons	$19,137
Seven persons	$21,594
Eight persons	$24,053
Nine persons or more	$28,745

U.S. Bureau of the Census, Current Population Reports, Series P60-185, *Poverty in the United States: 1992*, U.S. Government Printing Office, Washington, D.C. 1993.

Except for the recession in 1982-83, when the poverty rate for children in families reached 21.8 percent, the 1992 child poverty rate was the highest since the early 1960s. For the years between 1966 and 1979 the child poverty rate ranged between 14 and 17 percent.

Family Type

The type of family that a child lives in is an important indication of the child's welfare as measured by family income.

In 1992 median family income for married couple families with children was $44,483, compared to male only headed families of $22,366, and female only headed families of $13,445. The distribution of children by family income and family type is shown in the figure on the following page. The poverty rate for married couple families with children was 8.4

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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement

This newsletter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this newsletter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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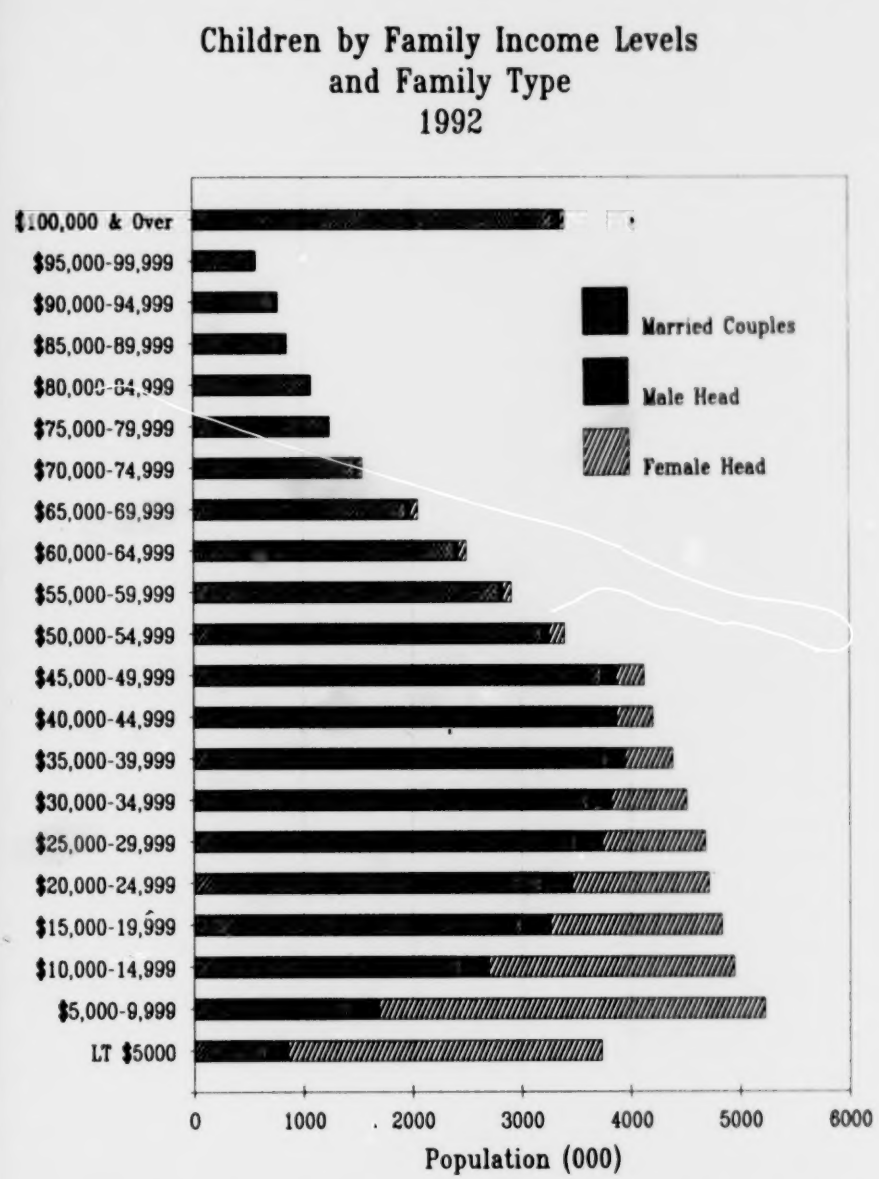


percent in 1992, compared to 22.1 percent in male only householder families, and 45.7 percent in female only householder families.

Race and Ethnicity

A second insightful perspective on the family incomes of children results from analysis by race and ethnicity. The Census Bureau reports these data for all children in families and for children in white, black, and Hispanic families.

We have reworked the Census Bureau's data into four more useful racial/ethnic classifications as follows: Anglo (non-Hispanic whites), black, Hispanic (assuming all Hispanics are whites), and other race (mainly Asians but including American Indians as well). This reclassification helps distinguish the welfare of non-Hispanic white families from Hispanic families, and provides some information on children in other race--mainly Asian--families.

Median family income--where medians were calculated based on the distribution of *children* and not *families*--in 1992 were as follows:

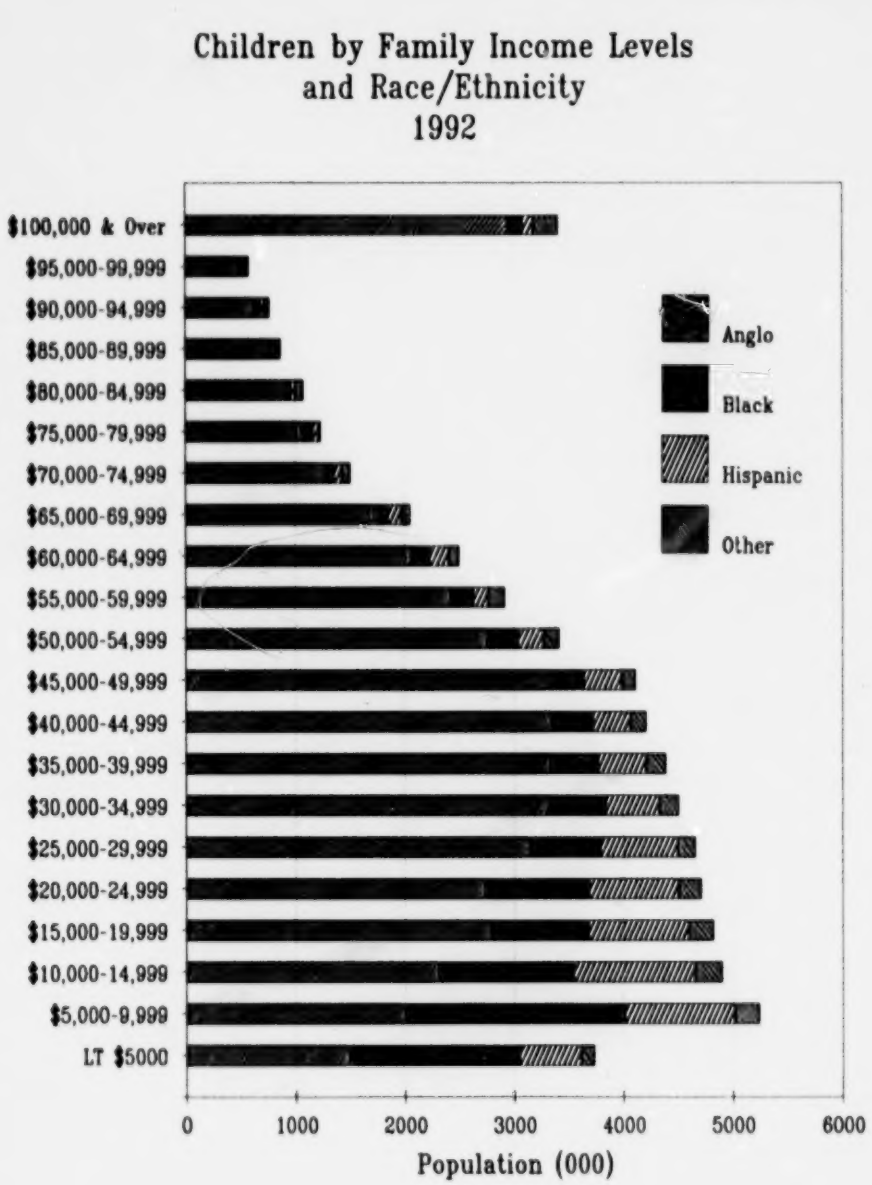
Anglos	$42,911
Other race	$36,598
Hispanic	$21,732
Black	$16,981

Expressed another way, median family income for children in other race families was 85 percent of median family income of children in Anglo families. For Hispanic children, median family income was 51 percent of children in Anglo families, and for blacks median family income was 40 percent of that for Anglo children.

These disparities are reflected in the chart on the following page. For example in the family income range of $5000 to $9999, 38 percent of the children are Anglo, 4 percent are other race, 19 percent are Hispanic, and 38 percent are black. However, at family incomes between $50,000 and $54,999, 81 percent of the children are Anglo, 4 percent are other race, 7 percent are Hispanic, and 8 percent are black. At the highest reported family income interval--$100,000 and over--86 percent of the children are Anglo, 7 percent are other race, 3 percent are Hispanic, and 4 percent are black.

The concentration of minority children among the lowest income families is also shown in the poverty rate for children by race/ethnicity. Here we have again reworked the data published by the Census Bureau to calculate poverty rates for children by the racial/ethnic categories that provide the most information:

Anglos	12.1 percent
Other race	22.4 percent
Hispanic	38.8 percent
Black	46.3 percent



The interaction between family type and race/ethnicity identifies the families with the lowest and highest poverty rates. Poverty rates among families with children ranged from a low of 5.7 percent among Anglo married couple families, to a high of 57.4 percent among Hispanic female head families and 57.2 percent among black female head families.

Family Income and Ability to Pay for College

So far we have shown that children are very widely distributed along the family income scale, and that children are growing up in families with very different family income prospects. But we are interested here primarily in the prospects of families to finance the college educations of their children first from their own resources.

Under the new Federal Methodology, each family's expectation is based largely on parental income with home equity excluded. With the help of software provided by the **New York State Higher Education Services Corporation**, we have calculated the parental contribution expected by the federal methodology at different levels of family income. (Our assumptions are for a married couple family, family size of four, one in college full-time, and no assets.)

Under these conditions, for 1993-94 the following expectations result:

AGI	Parent Contribution
$0	$0
$5,000	$0
$10,000	$0
$15,000	$0
$20,000	$0
$25,000	$481
$30,000	$1,189
$35,000	$1,897
$40,000	$2,680
$45,000	$3,655
$50,000	$4,850
$55,000	$6,067
$60,000	$7,405
$65,000	$8,757
$70,000	$10,110
$75,000	$11,462
$80,000	$12,815
$85,000	$14,167
$90,000	$15,519
$95,000	$16,872
$100,000	$18,224
$110,000	$20,812
$120,000	$23,376
$130,000	$25,940

ABLE-2 1993-94 Academic Year, Version 5.0, New York State Higher Education Services Corporation. 1993.

The above data have a direct meaning for college affordability, to wit: a

family earning $65,000, for example, should be able to contribute $8,757 toward the college attendance costs of their child enrolled in college. If the college the student attends costs less than this amount, the student will not qualify for need-based financial aid to attend college. If the college costs more, then the student will qualify for at least some financial aid to finance college attendance costs.

College Attendance Costs

In student financial aid, college attendance costs include direct and indirect costs. Direct costs include tuition, fees, books, and supplies--those costs incurred only by attending college. Indirect costs are living costs while attending college and include food, housing, transportation, and personal and medical care while enrolled.

(The above convention omits important costs that are particularly onerous to students from low family income backgrounds. These include opportunity costs [lost income while attending college], financing costs [fees and interest costs on educational loans heavily used in contemporary financial aid packages], risk costs, and other less significant costs. These cost diminish the net value of a higher education investment decision to students who incur them.)

For our analysis here, we use **The College Board**'s national survey results for the 1993-94 academic year. The Board's results are averages for public and private two- and four-year colleges for full-time campus resident and commuters, weighted by undergraduate enrollment.

National Average College Attendance Costs
1993-94

	Public Colleges		Private Colleges	
	Resident	Commuter	Resident	Commuter
Four-Year Colleges	**$8,562**	**$6,809**	**$17,846**	**$15,200**
Tuition and fees	2,527	2,527	11,025	11,025
Books and supplies	552	552	556	556
Food and housing*	3,680	1,601	4,793	1,722
Transportation	557	870	498	824
Other costs	1,246	1259	974	1,073
Two-Year Colleges	-	**$5,372**	**$12,142**	**$10,190**
Tuition and fees	1,229	1,229	6,175	6,175
Books and supplies	533	533	566	566
Food and housing*	-	1,643	3,980	1,589
Transportation	-	923	487	890
Other costs	-	1.044	934	970

* Housing not included for commuters.
- Insufficient data.

The data on attendance costs provides the third set of data required for our analyses. We have the distribution of children by family income, the expected family contribution by family income, and direct and indirect college attendance costs. Now we begin assembling these data to tell the story of financial need to pay college costs for children from different family income backgrounds.

Financial Need

In financial aid need analysis, financial need is the difference between college attendance costs and family resources available to pay them.

The data on family contribution by income level show that below about $23,000 of family income, most families cannot be expected to provide anything toward financing the college attendance costs of their children. These are full-need cases. These cases typically qualify for the maximum funded Pell Grant award, currently funded at $2300.

Above about $23,000 of family income, students present partial need up to the point where the expected family contribution from need analysis equals the attendance cost for the institution where they are enrolled. These are partial need cases. For example, for a student attending an average cost public four-year institution and living on campus where the college attendance cost is $8,562, students from families earning between $23,000 and about $64,000 would be partially needy and qualify for some financial aid.

Above about $64,000 in family income, only students with special circumstances--such as more than one family member enrolled in college--are likely to demonstrate financial need. Most students above this income level will have family contributions greater than attendance costs and therefore will not be financially needy.

What then are the family income levels above which students are no longer financially needy? Roughly speaking, they are the following:

Public two-year, commuter	$53,000
Public four-year, commuter	$58,000
Public four-year, resident	$64,000
Private two-year, commuter	$70,000
Private two-year, resident	$78,000
Private four-year, commuter	$89,000
Private four-year, resident	$98,000

Indeed, for a student attending an expensive private four-year college costing $25,000 per year, a student could be financially needy up to about $127,000.

Many factors intervene in these calculations that can alter

these average circumstances. Having more than one family member enrolled in college will reduce the family contribution and increase need. The presence of assets will increase the family's contribution and decrease financial need. Even home equity, which is now excluded from federal need analysis, is re-included by many private and some public colleges in determining eligibility for institutional funds.

Which Children Will be Financially Needy in College?

Finally, to wrap-up this analysis, we want to estimate the number and characteristics of America's children that will need financial aid to finance their higher educations when they reach age 19. This is largely a fanciful exercise, both because the financial situation of children in some families will improve by the time they reach college age and other children will never graduate from high school.

If, however, college tuitions continue to increase at two to three times the inflation rate and child poverty rates continue to increase (as they most surely will), then indeed what we outline here may generally describe the profile of financial need in the future.

We describe here three groups of children: the full-need population, the partial-need population, and those that will not require financial aid to attend college.

Full-Need Children: Those children living in families below about $23,000 in family income would--under the current Federal Methodology of need analysis--be full need cases. That is to say, their expected parental contribution from income would be zero. Therefore, all college attendance costs, regardless of the cost of the college attended, would have to be financed with grants, loans, and work-study from outside of the family.

In 1992 about 21.5 million children lived in families earning less than $23,000 per year. This is 33 percent of all children. In 1992 9.4 million of these children lived in married couple families, and 12.1 million lived in single parent families. The 9.4 million children living in married couple families were 19 percent of the total of children in married couple families. But the 12.1 million children in single parent families were 71 percent of the children in single parent families. Among these children, minority children in female headed families have the highest poverty rates of any group of children.

We can also describe these 21.5 million children in terms of their racial/ethnic characteristics. Of the total number of children of 21.5 million from families earning less than $23,000 per year, 48 percent were Anglo, 29 percent were black, 19 percent were Hispanic, and 5 percent were other race. However, 61 percent of all black children came from families earning less than $23,000 per year, compared to 53 percent of Hispanic children, 36 percent of other race children, and 23 percent of Anglo children.

☐ Fortunately, or ☐ unfortunately, depending on your point of view, only about 60 percent of those children from families earning less than $23,000 per year will ever graduate from high school, and therefore ever possibly need student financial aid. To an extraordinary degree, the children from these family backgrounds will incur other social program costs later in life in corrections and criminal justice for males, income maintenance programs for females, and lost wages and tax contributions for both genders.

Partial-Need Children: Children who come from families that will be able to provide at least some financial support for their children but will still need financial aid for college will come from families with incomes beginning at around $23,000 and going up to $53,000 for community college commuters, or $64,000 for public four-year college campus residents, or $98,000 for private four-year college campus residents. For simplicity we will here pick the $64,000 family income as the upper limit of the partial-need children.

In 1992 there were 28.3 million children living in families with incomes of between $23,000 and $64,000 per year. This was 43 percent of all children. Of this total, 26.6 million were in married couple families, and the balance of 1.7 million were in single parent families. There were 23.5 million children in Anglo families, 4.0 million in Hispanic, 3.4 million in black, and 1.3 million in other race families.

No-Need Children: There were 11.8 million children living in families earning more than $64,000 per year in 1992. These children could attend a public four-year college and live on campus without financial aid. Under the current Federal Methodology, the expected parental contribution from income will at least equal the college attendance costs of a public four-year college or university. These children are overwhelmingly from married couple Anglo families.

These children will not be needy depending on the type of college that they choose to attend. If the reference is a public two-year college attending as a commuter and no-need begins at $53,000 of family income, then 28 percent of all children could enroll without financial aid. If the reference is a public four-year college where no-need begins at $64,000 of family income, then the proportion drops to 18 percent could enroll without financial aid. However, at an average cost private four-year college, just 6 percent of all children are from families earning $98,000 or more per year and could enroll without student financial assistance.

Whose responsibility is it?

Shifting Responsibilities for Financing Higher Education from Government to Individuals

***OPPORTUNITY** continues its analyses and reports on changes in the financing of higher education by examining data from the National Income and Product Accounts (NIPA) for the United States.*

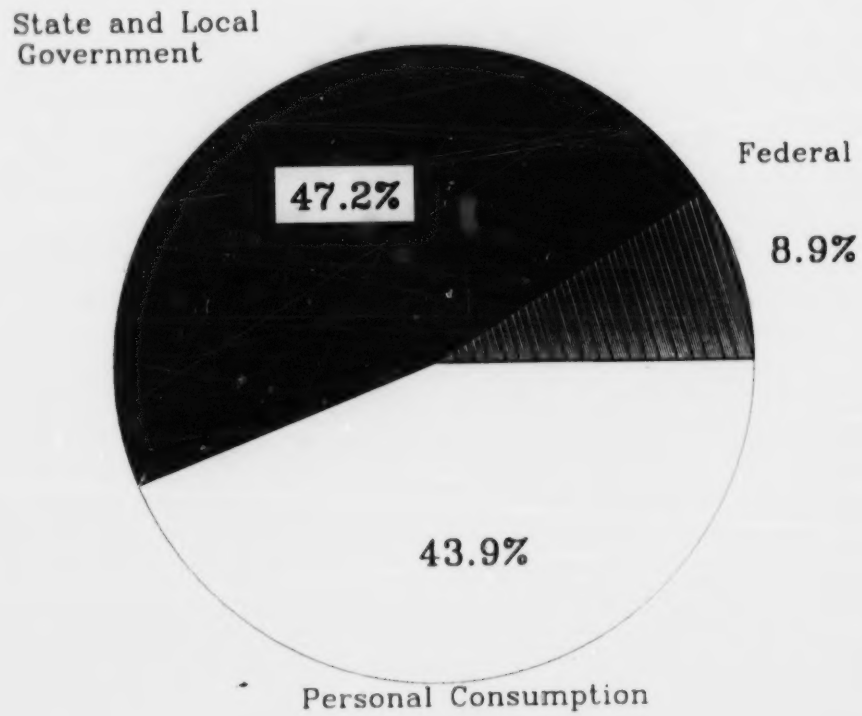
*These data confirm other findings presented in **OPPORTUNITY** previously that show the financial responsibility for higher education being shifted from taxpayers generally to students enrolled in higher education institutions.*

Understanding this shift in responsibility is essential to understanding why college tuitions are increasing so much faster than other costs. The shift also has meaning for what public policy must do to assure the accessibility and affordability of higher education to all of our youth- not just those from families affluent enough to be able to afford these cost increases.

The National Income and Product Accounts show that the proportion of the gross domestic product (GDP) spent on the higher education of its citizens increased sharply between 1959 and 1970, but has increased only very slightly since then.

Despite the relatively stable share of GDP for higher education since 1970, the share of federal, state and local government expenditures for higher education has been declining for at least the last decade. At the same time, the proportion of personal consumption expenditures for higher education has been increasing since 1959 and by 1992 stood at a larger share of personal consumption expenditures than any time in the recorded history of NIPA.

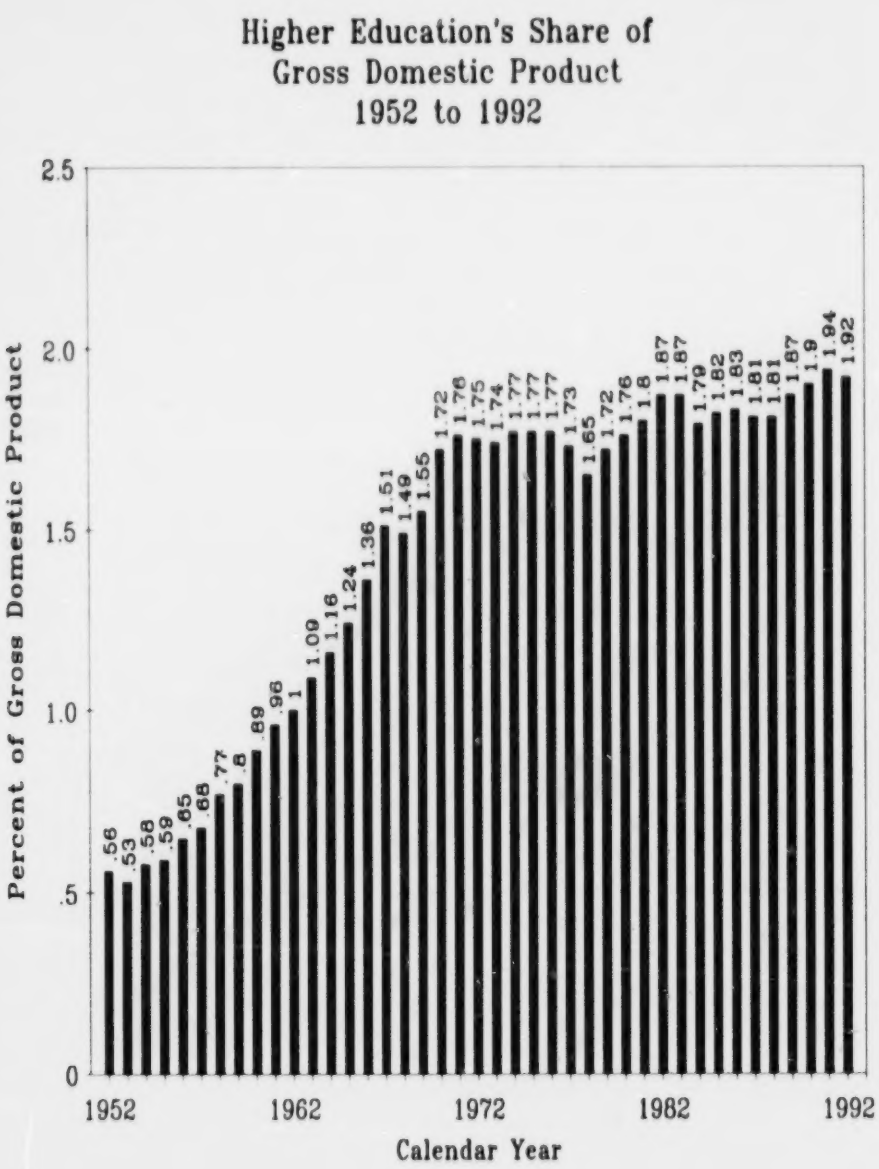
Expenditures by Source for Higher Education 1992



Total: $115,717,000,000

The National Income and Product Accounts

The National Income and Product Accounts are the federal government's attempt to describe the economic activity of the United States on a calendar year basis. These data were first published as national income statistics by the Department of Commerce in 1942. They currently appear in *Survey of Current Business* published monthly by the Department of Commerce. The NIPA accounts are published in nine series of tables. The analyses presented here are taken from the table series on national product and income, personal income and outlays, and government receipts and expenditures.



Higher Education's Share of Gross Domestic Product

Total expenditures for higher education (not living costs in college, nor auxiliary enterprises of higher education which are tabulated separately) totaled $115.7 billion in 1992. This was up from $47.8 billion in 1980, and $1.9 billion in 1952.

Higher education's share of the gross domestic product (GDP) is an important measure of the nation's investment in the future. In 1952, 0.6 percent of the nation's GDP was spent by individuals, and federal, state, and local governments on higher education. This increased rapidly to 1.7 percent by 1970, and since then has edged upward much more slowly to 1.9 percent of the GDP of $6,038.5 billion by 1992, as shown in the above chart.

The major costs are born by students (and their parents), and state governments. These expenditures were shared in 1992 as shown in the pie chart. Of the $115.7 billion spent in 1992, state and local government spent $54.7 billion, the federal government spent $10.3 billion, and individuals spent $50.8 billion.

State and Local Government Expenditures

State governments provide the bulk of governmental revenues for higher education. In the NIPA accounts, state and local governmental expenditures are combined.

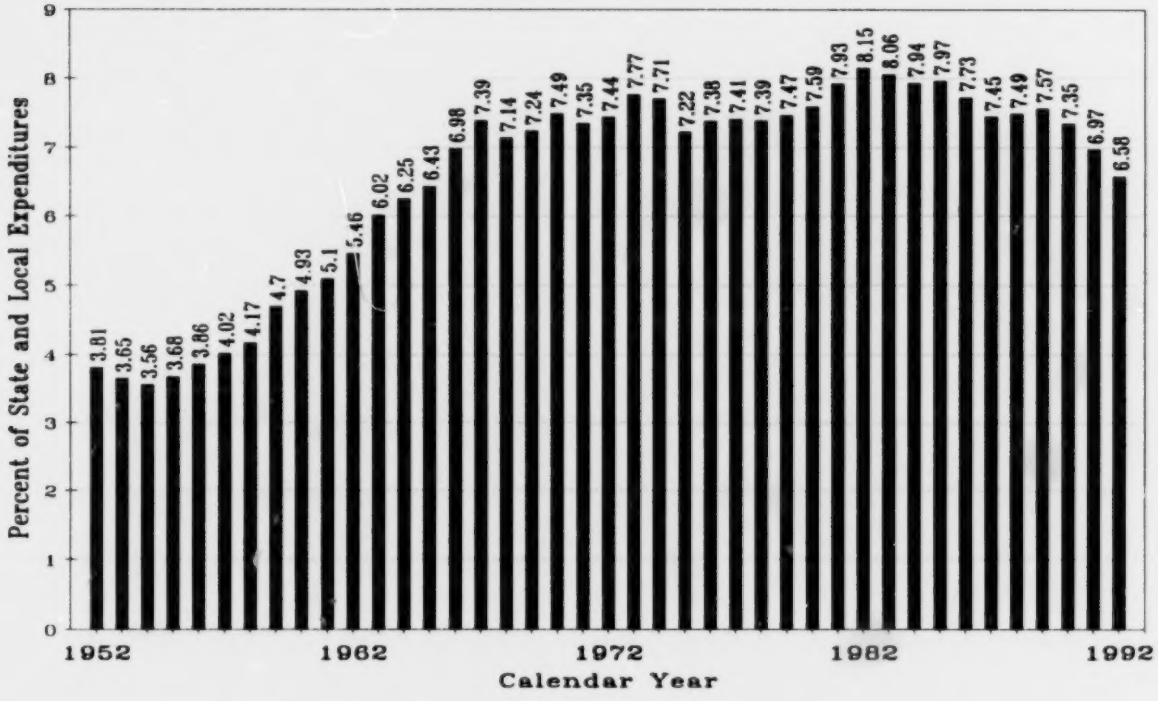
In 1992 state and local governments spent a total of $830.6 billion, of which $54.7 billion was spent on higher education. In the NIPA accounting this excludes tuition revenues as well as all auxiliary enterprises (hospitals, food service, dormitories, bookstores, athletic events, entertainment, etc.).

This was 6.58 percent of the expenditures of state and local governments, or well below the peak of 8.15 percent reached ten years earlier. (If in 1992 higher education had its 1982 share of the expenditures of state and local governments, instead of the $54.7 billion actually spent higher education would have received $67.7 billion dollars from state and local governments for operations and capital. The retrenchment in state and local government support for higher education had cost higher education $13 billion in 1992 alone.)

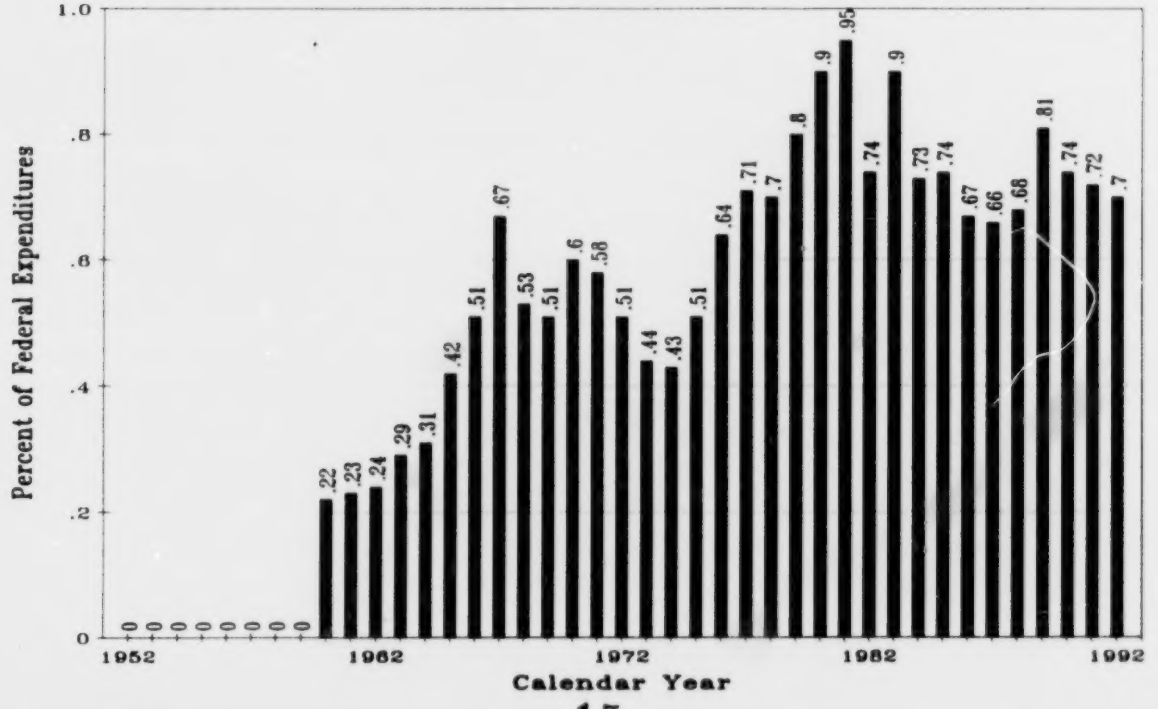
Federal Government Expenditures

The federal government provides resources to higher education in obvious ways, such as Pell Grants and educational loan subsidies. It provides funds in other ways as well, such as through the Bureau of Indian Affairs, to universities in the District of

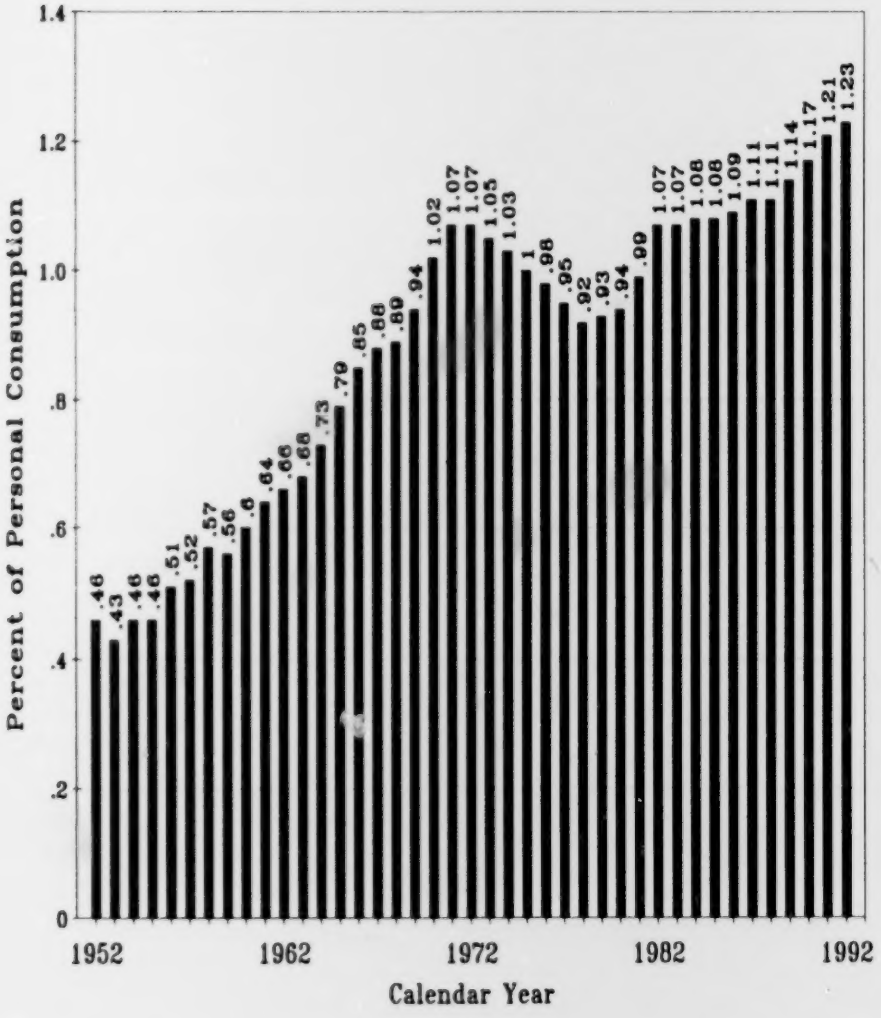
Higher Education's Share of Expenditures of State and Local Governments 1952 to 1992



Higher Education's Share of Expenditures of the Federal Government 1952 to 1992



Higher Education's Share of Personal Consumption Expenditures 1952 to 1992



Columbia, (e.g., Howard and Gallaudet Universities), other institutions directly, and through the National Science Foundation and other sources. Most of these funds move through the Department of Education.

In 1992 the federal government spent $10.25 billion on higher education, nearly all in one form or another of financial aid to students. This expenditure represented 0.7 percent of the expenditures of the federal government in 1992. Federal expenditures increased from nothing in 1959 to a peak of 0.95 percent by 1981, and have since dropped off to 0.7 percent in 1992. If higher education received its 1981 share of federal expenditures in 1992, instead of the $10.25 billion actual there would have been $13.86 billion spent--probably mostly in student financial aid. The cutback in higher education's share of federal expenditures means that there was $3.6 billion less spent on federal higher education programs in 1992 compared to 1981.

Personal Consumption

In the NIPA accounting, higher education expenditures by individuals are treated as consumption. We prefer to think of this as investment because the costs of college attendance are returned to the individual four to thirteen times over during the college graduate's working lifetime.

The NIPA accounting considers only certain expenditures. In public institutions it is tuition paid by students. In private institutions it is current institutional expenditures less receipts, and excludes auxiliary services (meals, rooms, entertainment) accounted for separately in NIPA accounts, and excludes expenditures for research and development financed under contracts for grants.

In 1992 total personal consumption was $4,139.9 billion, of which $50.8 billion was spent on higher education (as defined in NIPA accounting). This was 1.23 percent of total consumption and was the largest share of personal consumption expenditures since the current definitions were first reported in 1952. With the exception of the years between 1972 and 1978, the proportion of personal consumption expenditures for higher education increased steadily and substantially from 0.43 percent in 1953 to the record high of 1.23 percent by 1992. This trend shows no sign of reversing since current state budgets and private institutional finance is driving tuitions to larger shares of costs of educating students.

Shifting Burdens

There are several ways to describe the shifting responsibilities for financing higher education between government

and individuals. We offer one here.

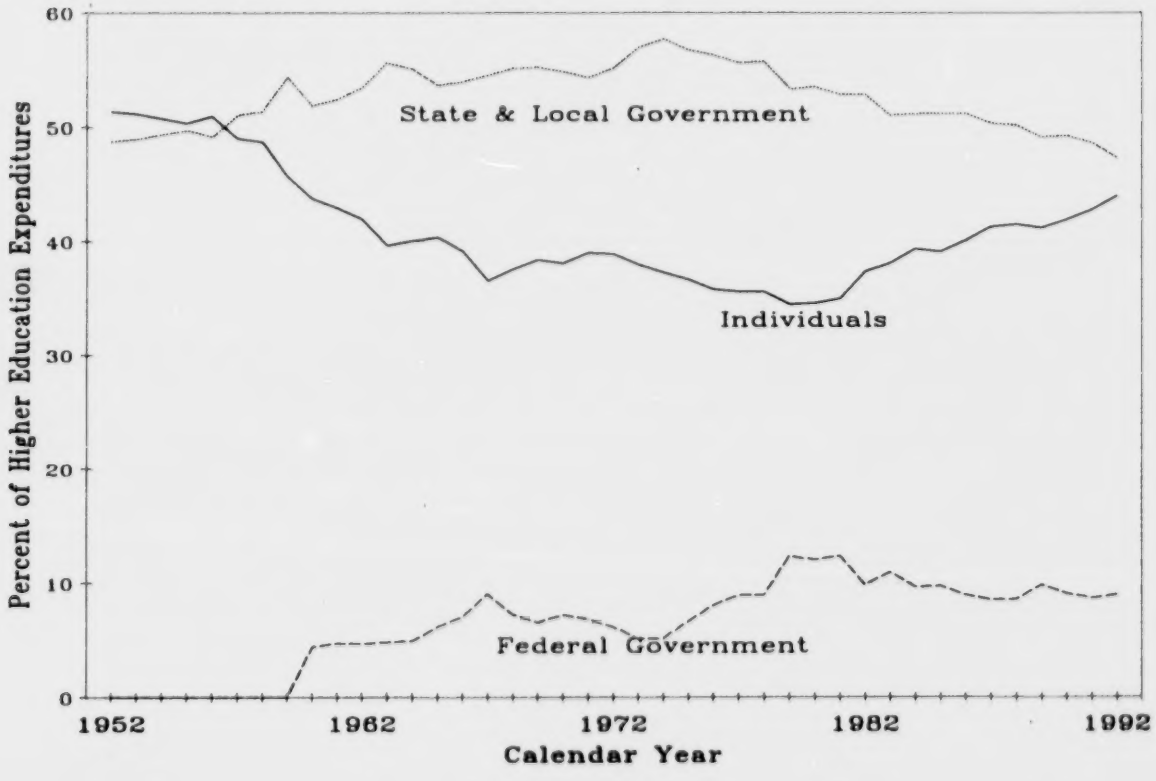
- Between 1952 and 1992 the share of total expenditures for higher education paid by individuals and government is shown in the following chart. Since 1957, the largest share has been paid by state and local government, but this share has been declining steadily from a peak of 57.7 percent reached in 1974 to 47.2 percent in 1992.
- The smallest share has always been paid by the federal government. The federal share increased from zero in 1959 to a peak of 12.3 percent in 1979 and 1981. Since then, the federal share has declined to 8.9 percent in 1992.
- The only currently growing share is that paid by individuals. That share decreased from 51.3 percent in 1952 to a low of 34.4 percent in 1979, and has since increased almost steadily to 43.9 percent in 1992.

Based on the experience during the 1980s, more current reports on state budgeting from the National Conference of State Legislatures and tuition reports from several sources, individuals will become the primary source of funds for higher education again during 1994. This redistribution of financial responsibilities will for the first time in 37 years place students and their families ahead of the tax contributions provided by state and local government.

Nobel laureate economists like Milton Friedman and Theodore Schultz argued in the 1960s that the benefits of higher education accrued mainly to the individual, and thus should be borne by individuals. Indeed that policy prescription is gradually being realized, although differences in financing public and private higher education make this prescription unevenly achieved.

More importantly from the perspective of the social imperative to broaden opportunities for postsecondary education and training, extension of postsecondary opportunity to under-represented populations will cost substantial sums. The current obstacles to this extension--inadequate capacity, deteriorating quality, and declining affordability--can be addressed by internal resource reallocation within institutions only to a very limited degree. Rather, effective reallocation would be to stop subsidizing the higher educations of those able to bear a larger share of the costs of their own educations to free up resources for those who truly need them to attend postsecondary education.

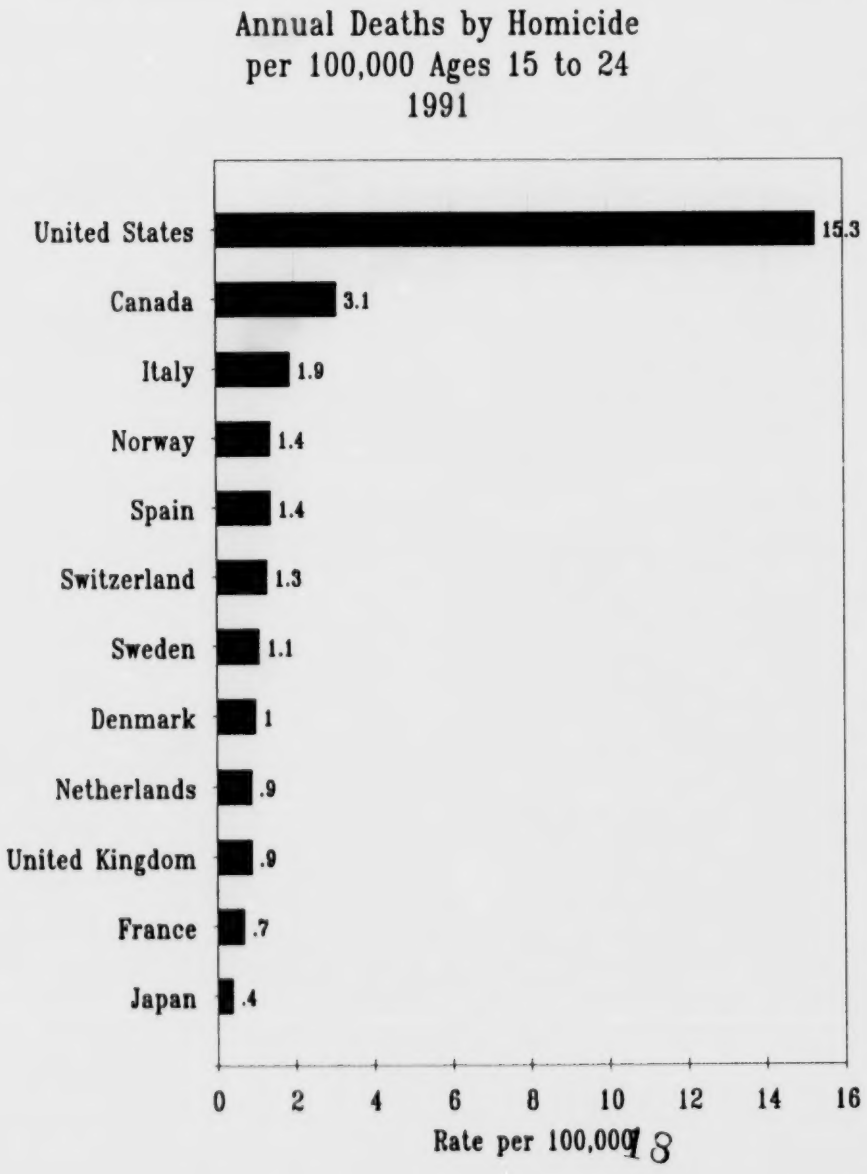
Distribution of Responsibilities for Financing Higher Education 1952 to 1992



Think About This for a While . . .

Murder

The United States leads the industrialized world for murders of young people. In fact, nine out of ten killings of young people in the industrialized world occur in the United States, according to the World Health Organization. Source: ***World Health Statistics Annual,*** *World Health Organization, 1991. Data are for 1987-1990.*



Where More . . . *. . . Is Always Better*

Economic Welfare and Educational Attainment

Family income may be the best single measure of the private welfare to which nearly all individuals aspire. It measures living standards in many ways, from meeting basic needs at lower income levels to offering access to this economy's abundant choices for those at higher income levels.

Here we update and extend our report from a year ago on family income by educational attainment. The message contained in the Census Bureau data then is the same message contained in this update: not only is standard of living explained in very large part by educational attainment, but the large disparities in living standards between American families at different levels of educational attainment are growing wider just as they have for the last two decades.

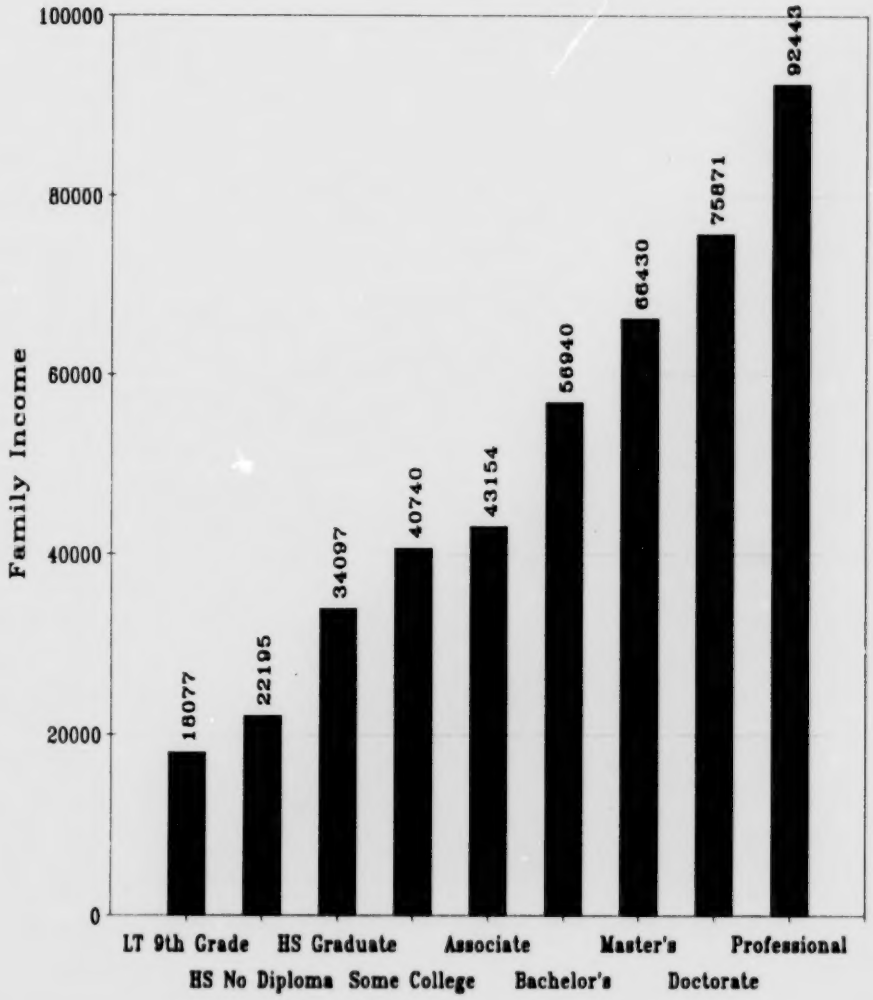
Where educational attainment was once one of several means to a decent standard of living, the disappearance of the alternatives has left postsecondary education and training as the only means to that living standard. Being hardworking and honest is no longer sufficient to secure a decent standard of living. Now one must be hardworking, honest, and postsecondary educated.

For those who do not pursue postsecondary education, the labor market offers a grim and deteriorating standard of living. For those who do pursue postsecondary education, chances for a better standard of living are greatly improved. This finding from the data applies not only to individuals but to our collective national welfare as well.

Family Income

In 1992 families headed by individuals with less than a ninth grade education had median family incomes of about $18,000. These family incomes--measuring living standards--increased directly with higher levels of educational attainment by the head of the household. For families headed by high school drop-outs, median family income was about $22,200 in 1992.

Median Family Income
by Educational Attainment of Householder
1992



Median family income increased to $34,000 for high school graduates, $43,000 for the associate degree, and $57,000 for families headed by persons with bachelor's degrees. Median family incomes continued upward, peaking at over $92,000 for families headed by individuals with professional degrees from college.

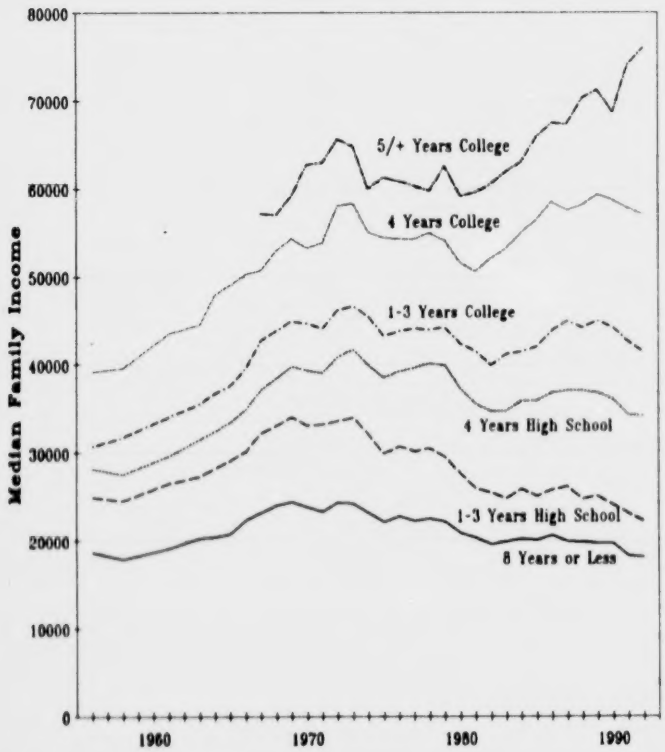
Changes in Family Income

Adjusted to 1992 dollars for the effects of inflation, median family income for all families increased sharply from $24,700 in 1956 to a peak of $39,500 in 1973. After 1973 median family incomes declined to $35,200 by 1982, increased again to $39,900 in 1989, and have since declined to $37,900 in 1992. Generally, median family incomes for all families stopped growing after 1973, fluctuating between $35,000 and $40,000 for the last two decades. In 1992 median family income is about 4 percent less than it was in 1973.

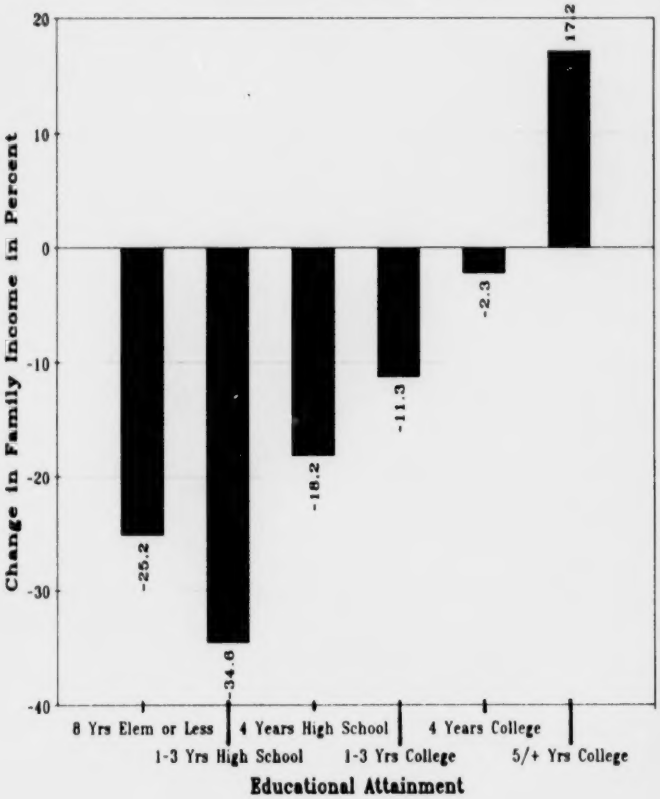
This stability in median family income for all families obscures a critically important *redistribution* of families along the income scale (and hence standard of living scale) that has occurred during the last two decades. This redistribution is the result of a sorting process conducted by the American labor market where access to the better paying jobs has been determined largely and increasingly by the educational attainment of workers.

The effects of this sorting process are shown in the following chart. The growth in real family incomes between 1956 and

Median Family Income
by Educational Attainment of Householder
1956 to 1992



Change in Median Family Income
by Educational Attainment of Householder
Between 1973 and 1992



1973 occurred across all levels of educational attainment. Since 1973, however, the living standards of some families have improved, while for many others living standards have deteriorated. The dividing line is educational attainment.

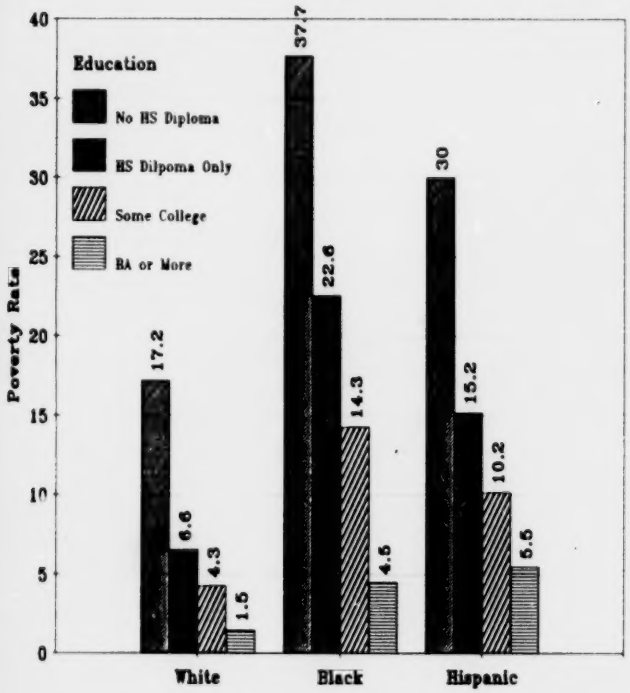
The effects of the redistribution of family income/living standards between 1973 and 1992 are made starkly clear in the above chart. At the extremes, median family income for families headed by householders with one to three years of high school has declined by about 35 percent, while median family income for families headed by householders with more than a baccalaureate degree from college has increased by about 17 percent.

Poverty

There are more ways to measure living standards than family income. We report two here: poverty and unemployment. The proportion of families at different levels of educational attainment with children living in poverty in 1992 are shown

in the following chart. For example for whites the poverty rate in families where the householder had a baccalaureate degree or more was 1.5 percent. The proportion living below the poverty line among families headed by individuals with some college rose to 4.3 percent, for high school graduates without college it was 6.6 percent, and for those without a high school diploma it rose to 17.2 percent.

Poverty Rates of Families with Children by Educational Attainment of Householder and Race/Ethnicity 1992



The figures were higher for black and Hispanic families, but the same inverse relationship between educational attainment and poverty rates still held: poverty rates declined as educational attainment increased. Among black families the poverty rate ranged from 4.5 percent among families headed by college graduates to 37.7 percent among families headed by high school drop-outs. Among Hispanics the poverty rate ranged from 5.5 percent in families headed by college graduates to 30.0 percent among families headed by high school drop-outs.

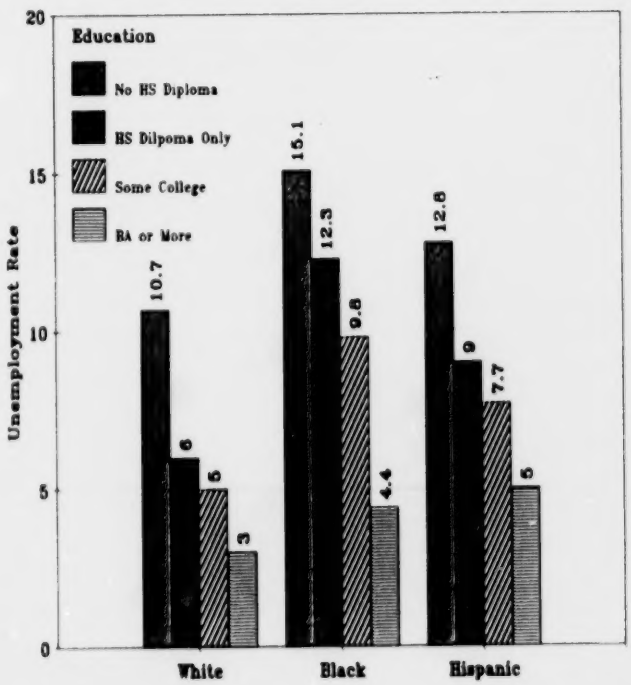
Unemployment

Another perspective on the relationship between economic welfare and educational attainment is through labor force participation and employment/unemployment. These data are collected by the Bureau of Labor Statistics in the *Current Population Survey*, but then remain largely unpublished. In this case, the *Statistical Abstract of the United States, 1993*, has obtained and published them.

Labor force participation includes both those who are employed and those who are seeking employment. Data are collected on the civilian non-institutional population age 25 and over. In 1992 about 66 percent of this population was either employed or seeking employment. By levels of educational attainment, labor force participation rates were 41 percent among those with less than a high school diploma, 66 percent among high school graduates without college, 75 percent among those with some college, and 81 percent among those with a bachelor's degree or more.

The unemployment rates for the labor force in 1992 was 6.1 percent. By level of educational attainment, the unemployment rate was 11.4 percent among those without high school diplomas, 6.8 percent among those with the high school diploma, 5.6 percent among those with some college, and 3.2 percent among those with a bachelor's degree or more. This inverse relationship between educational attainment and unemployment holds for the three major population groups, as shown in the following chart.

Unemployment Rates for Persons by Educational Attainment and Race/Ethnicity 1992



OPPORTUNITY Growth

With this issue, **OPPORTUNITY** grows from ten issues per year to twelve and from 12 pages to 16+ pages per issue. This expansion is the direct result of the growing importance of educational opportunity to Americans individually and collectively, to the large amount of important information we have left out of past issues due to space limitations, and the steady deterioration in public policy making and program support for equality, quality and quantity of postsecondary education opportunity over the last fifteen years.

Our subscribers are about a third in postsecondary outreach programs, about a third in admissions and financial aid, and about a third in everything else including state higher education governance, planning and financial aid agencies, national higher education organizations, institutional researchers, university chancellors, student organizations, etc. We know from what many of our subscribers tell us that this newsletter describes the same realities that you encounter in your professional efforts to provide educational opportunities to students. The policy analysis perspective presented in **OPPORTUNITY** is at once both confirming of what many of you see in your daily work--albeit from another perspective--and at the same time unsettling because of the growing disparity between what you see needs to be done and what can be accomplished with available resources.

Very simply put: we will not survive as one country if the social disintegration path we have been on for the last twenty years continues for another twenty. We cannot lock up every poor and minority male between the ages of 15 and 35 or 40. We cannot finance ever expanding welfare roles, and we cannot tolerate steady growth in child poverty rates. (Out here in Iowa we liken such policy to that of the farmer who eats his own seed corn, then wonders how he will plant a crop when spring arrives.) At some point soon we must reverse the trend toward growing disparity in welfare and educational opportunity and begin to close it. Other countries are supporting their children, and we ought to do so also.

This newsletter will continue to focus on these disparities between the job that needs to be done and what is being accomplished. We will focus on three themes, just as we have from the beginning:

- First, the growing educational requirements of the labor force demand that opportunities for postsecondary education and training be substantially broadened to include very large numbers of previously unserved populations, especially the poor.
- Second, public institutions must begin to address more responsibly the shift in responsibilities for financing higher education from government to individuals. The appropriate response is **not** to impose enrollment limits, raise admissions requirements, cut classes and programs and faculty, raise student-faculty ratios, etc.
- Third, broadened opportunity costs money, lots of it. If government continues to retrench in its support for higher education, then opportunity must be financed from existing resources. That means those who "need" public funds to gain education should have the first and perhaps exclusive claims to such funds over those who do not "need" them.

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Postsecondary Education
OPPORTUNITY

The Mortenson Report on Public Policy Analysis of Opportunity for Postsecondary Education

Number 20 | **Iowa City, Iowa** | **February 1994**

Choose the suburbs . . . *. . . Maybe*

Chance for College by Metropolitan Status

Young adults from suburban areas are more likely than their peers from central cities or nonmetropolitan areas to be enrolled in college by the time they are 18 to 19 years of age, according to data published by the Census Bureau. They are both more likely to graduate from high school and to continue on to college immediately after high school.

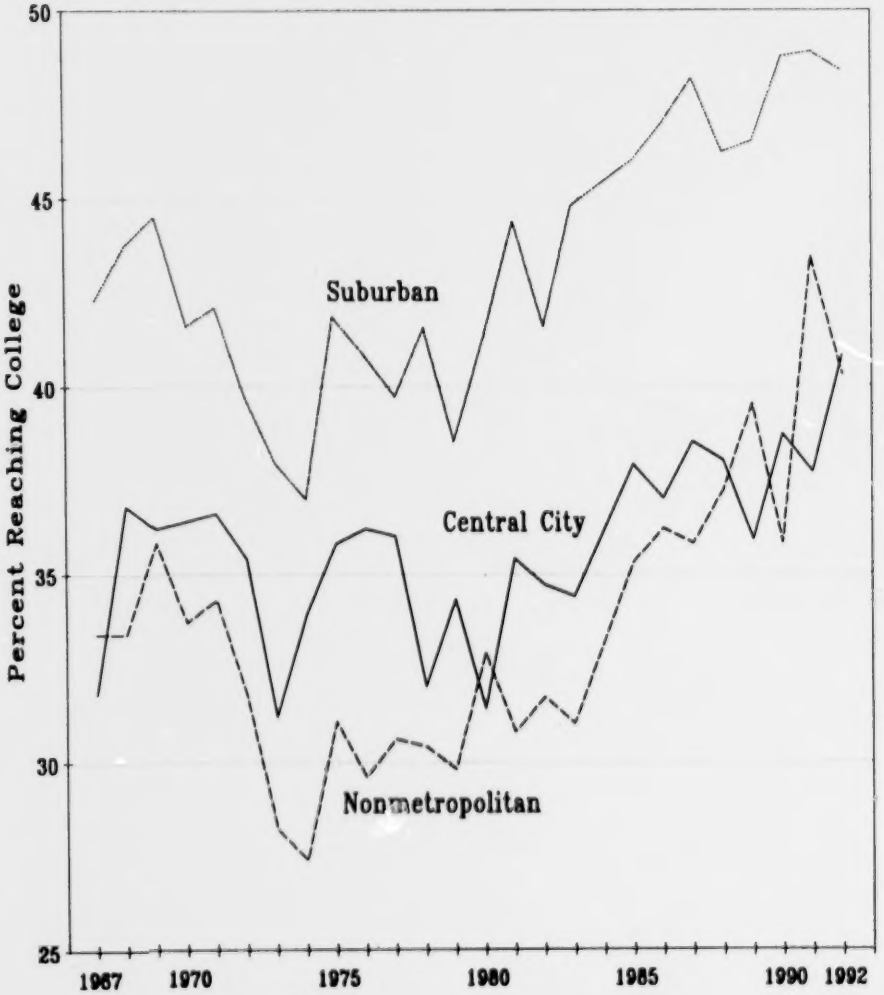
This pattern has persisted over the last two-and-a-half decades. However, some disturbing changes in high school graduation rates in metropolitan areas may be altering this long-term pattern.

These and other important findings are derived from data collected in the October Current Population Survey, and published in Current Population Reports.

Kominski, R., and Adams, A. *School Enrollment - Social and Economic Characteristics of Students: October 1992.* U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 474. U.S. Government Printing Office, Washington, DC, 1993.

In this report we analyze one's chances for reaching college by ages 18 to 19 in terms of where young people live: central city, the area outside of a central city that is within a metropolitan area (and that we call suburban), and the areas outside of metropolitan zones (that we call nonmetropolitan).

Chance for College for 18-19 Year Olds
by Metropolitan Status
1967 to 1992



To reach college one must first graduate from high school, and then when so graduated continue on to college. One's chances for reaching college are the mathematical product of high school graduation rates and

college continuation rates for those who have graduated from high school.

The Census Bureau collects and reports these data for whites, blacks, and Hispanics. We will touch on these groups to illustrate the finding that racial/ethnic differences in college continuation rates apply to these groups regardless of where they are living.

Chance for College

In 1992, 48.4 percent of the 18 to 19 year olds living in the suburbs of central cities were enrolled in college. This compared to 40.8 percent of those living in central cities, and 40.3 percent of those living in nonmetropolitan areas. These data are plotted in the chart on the previous page.

Over the last twenty six years, since 1967, 18 to 19 year olds living in the suburbs were always more likely to be enrolled in college than were their age peers in central cities or nonmetropolitan areas--and by a substantial margin.

However, *generally* chances for college enrollment fluctuated up and down in tandem across all three geographic groups. Between 1967 and the end of the military draft in 1972, enrollment rates were higher than they were after the draft ended and through the balance of the 1970s.

Beginning about 1980 and continuing to 1992, chances for college enrollment increased steadily and substantially for all three geographic groupings of the population. For each group, the highest proportion of 18 to 19 years olds that were enrolled in college was reached in either 1991 or 1992 for the entire period back to 1967.

We have also analyzed the difference in chances for college between suburban and central city, and between suburban and nonmetropolitan 18 to 19 year olds over the time frame of this study. Because federal policy is geared toward equalizing higher education opportunity, the narrowing of the difference can represent progress, while widening the gap could represent equality program problems or failure.

The results of these analyses are as follows. First, for young adults in central cities the difference in chances for college compared to young adults in the suburbs closed substantially and rapidly between 1967 and 1974, from 10.5 percent to 3.1 percent. The gap between central city and suburban college enrollment rates remained relatively small through 1979, when it was still 4.2 percent. Thereafter, and up to the present, the gap has reopened and reached the greatest difference in 1991 at 11.2 percent. In 1992 the gap was 7.6 percent.

The above pattern is very similar to trends and patterns in white and black college continuation rates, where the suburbs represent white enrollment behavior and the central cities represent black enrollment behavior.

A somewhat different picture emerges when nonmetropolitan young adults are compared to those living in suburbs. Once again, suburban college participation rates are well above those of nonmetropolitan 18 to 19 year olds. The gap widened between the early 1970s (when it was about 8 percent), and the early 1980s (when it reached about 14 percent).

However, since the early 1980s the gap has closed substantially, to 6 percent by 1991. The difference in 1991 was the smallest for any of the last 26 years and appears to reflect a substantial narrowing of the gap in college participation between nonmetropolitan and suburban young adults.

High School Graduation

To reach college one must first graduate from high school, then following graduation one must enroll in college. Here we analyze the two components of the chance for reaching college by age 18 to 19, beginning with high school graduation rates.

In 1992 the proportion of 18 to 19 years olds that were high school graduates was 66.5 percent in central cities, 72.9 percent in the suburbs, and

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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement

This newsletter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this newsletter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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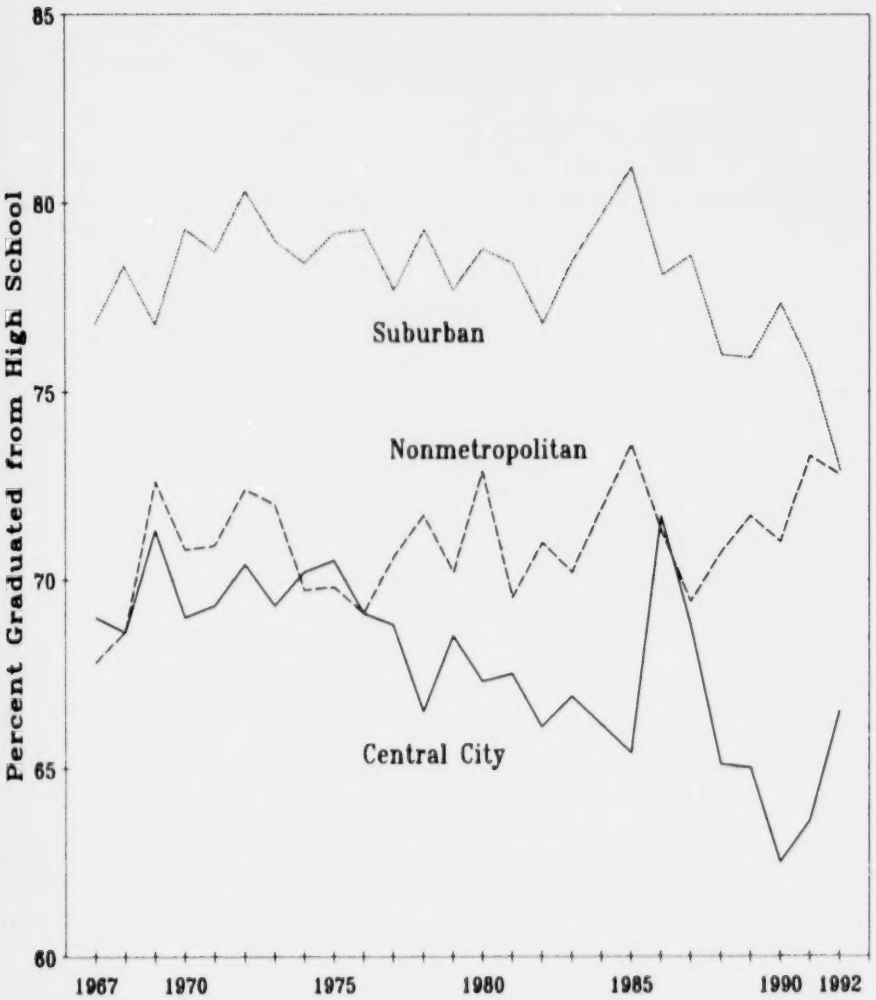
High School Graduation Rates for 18-19 Year Olds by Metropolitan Status 1967 to 1992



72.8 percent in nonmetropolitan areas. Since 1967 high school graduation rates in the suburbs have always been greater than rates for central cities and nonmetropolitan areas, and until recently by a very substantial margin.

The chart on this page shows that high school graduation rates are on very different trend lines. In **central cities** high school graduation rates have been generally declining since the mid1970s. In 1975 central city high school graduation rates stood at 70.5 percent. Thereafter they generally declined to their nadir of 62.5 percent in 1990. By 1992 they had recovered some of this loss and stood at 66.5 percent.

In **suburban** areas high school graduation rates were stable to increasing slightly between 1967 (76.8 percent) and 1985 when they reached a peak of 81.0 percent. But since 1985 high school graduation rates have dropped to 72.9 percent by 1992. The latest observation is the lowest suburban high school graduation rate in the twenty-six years of reported data.

A far different picture emerges from analysis of **nonmetropolitan** high school graduation rates. These rates have tended to increase between 1967 (when they were the lowest on record at 67.8 percent) and 1992 (when they were 72.8 percent, and not far below the record of 73.6 percent reached in 1985).

Unfortunately, nonmetropolitan 18 and 19 years olds also represent a declining share of the metropolitanizing population. In 1971 they were 36 percent of this age group. By 1992 they were just 23 percent of the 18 and 19 years olds in the country. In contrast the central city share of this population increased from 28.7 to 30.4 percent, and the suburban share increased from 35.2 to 46.9 percent.

Expressed another way, high school graduation rates are dropping fastest where the share of 18 to 19 years olds is growing the fastest.

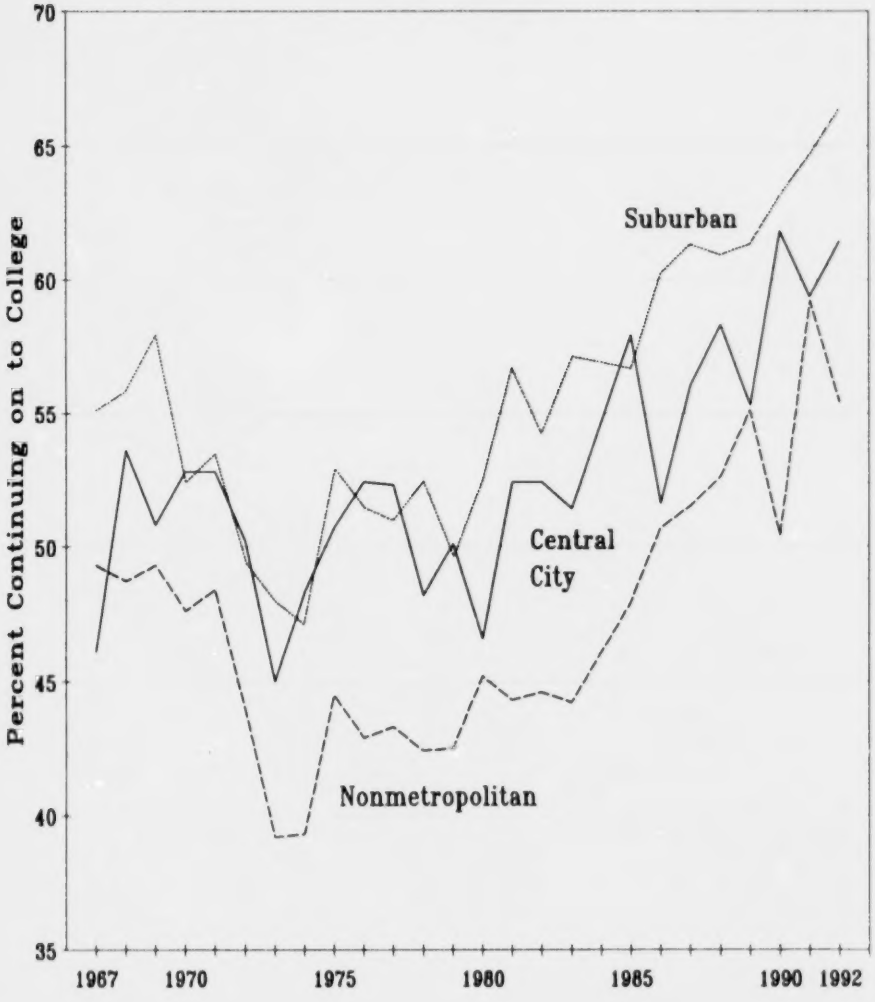
College Continuation

For those 18 to 19 years olds that graduate from high school, we next calculate the proportion continuing their educations in college.

In 1992 the college continuation rate for suburban high school graduates ages 18 and 19 years was 66.4 percent, compared to 61.4 in central cities, and 55.4 percent in nonmetropolitan areas.

For all three regions, college continuation rates declined between 1967 and 1973 (following ending of the military draft for males), increased somewhat through the remainder of the 1970s, and have increased sharply

College Continuation Rates for 18-19 Year Old High School Graduates by Metropolitan Status 1967 to 1992



since about 1979. For example, between 1979 and 1992 the college continuation rate among 18 to 19 year olds in the suburbs increased by 16.8 percent, by 11.3 percent in central cities, and by 12.9 percent in nonmetropolitan areas.

An especially disturbing aspect of the college continuation rates concerns the divergence of central city and suburban rates since 1979. From 1970 through 1979 these rates were very similar, with the suburban college continuation rate averaging about 0.5 percent above the central city college continuation rate. However, between 1980 and 1992 the suburban rate exceeded the central city rate by an average of 4.2 percent each year.

College Continuation by Race

The Census Bureau has reported survey data collected in the Current Population Survey by race and ethnicity (whites, blacks, and Hispanics) but strangely enough not by gender.

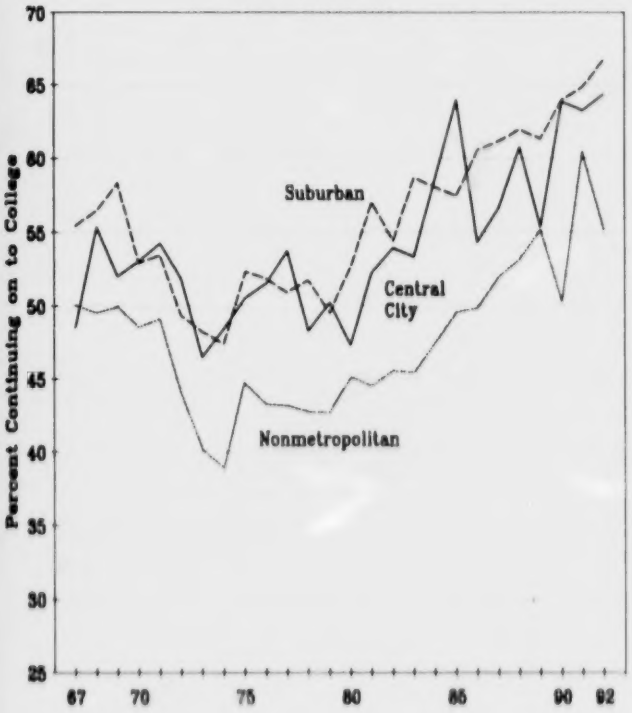
We show college continuation rates by metropolitan status here for whites and blacks for the years 1967 through 1992 to make one simple point: the adversities in college access that have afflicted blacks compared to whites during this period have impacted blacks in central city, suburban, and nonmetropolitan areas almost equally. No geographic location appears to be immune from these adversities for blacks.

The first chart on the following page shows college continuation rates for white high school graduates. This chart looks quite similar to the chart on this page simply because whites constitute four out of five 18 and 19 year olds and hence dominate the data.

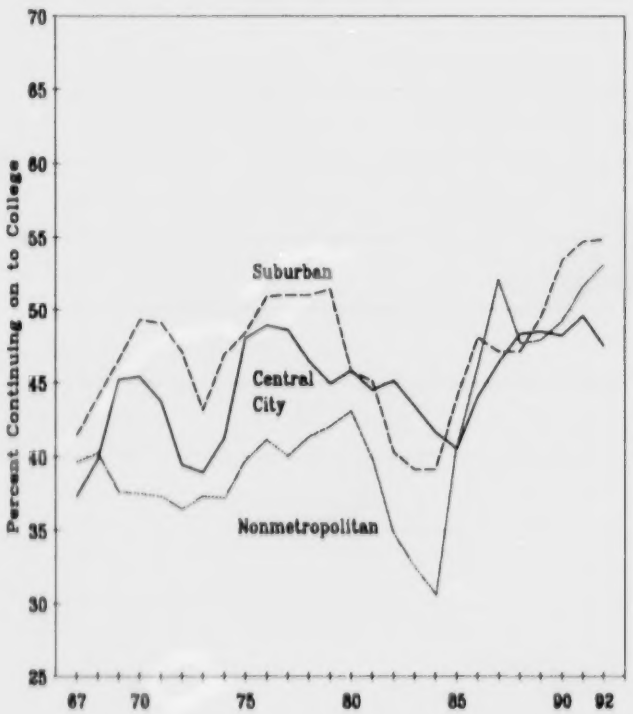
For all three locations--central city, suburban, and nonmetropolitan--white college continuation rates declined in the early 1970s (following the ending of the military draft), remained relatively low through the balance of the 1970s (when the labor market advantage of a college graduate compared to a high school graduate declined), and have risen sharply throughout the 1980s and early 1990s (as the labor market advantage of a college graduate compared to a high school graduate has increased).

A somewhat different picture emerges for black high school graduates. As shown in the second chart on the following page, college continuation rates for 18 to 19 year old black high school graduates show tandem fluctuations up and down over the last twenty six year period. Black college continuation rates generally fluctuated up and down with white rates with one important exception: between the late 1970s and mid 1980s when rates for whites (central city, suburban, and

College Continuation Rates for White 18-19 Year Old High School Graduates by Metropolitan Status 1967 to 1992



College Continuation Rates for Black 18-19 Year Old High School Graduates by Metropolitan Status 1967 to 1992



nonmetropolitan) were all *increasing* sharply, college continuation rates were *decreasing* sharply for blacks.

The main finding from the chart on black college continuation rates in that the factors affecting black participation in higher education influence blacks regardless of where they live--central city, suburban and nonmetropolitan.

Summary

This analysis leads to several important findings:

- Young adults ages 18 and 19 have a greater chance for reaching college if they come from suburban communities, and lesser chances for reaching college if they live in central cities or nonmetropolitan areas. The suburban advantage has persisted for the last 26 years.
- Between 1967 and 1987, 18 to 19 year olds living in central cities enjoyed a significant advantage in chances for reaching college over their peers in nonmetropolitan areas. However, for the last five years their chances have been about equal.

When we disaggregate chance for college into its two components--high school graduation and college continuation--we gain additional insight:

- High school graduation rates for 18 to 19 year olds in central cities have been declining since 1975.
- High school graduation rates for young adults in suburban areas have been declining since 1985, and were lower in 1992 than they have been at any time in the last 26 years.
- Only in nonmetropolitan areas are high school graduation rates increasing at all, and the increase is quite small.

Apparently kids in metropolitan areas have not heard that former President Bush and the nation's governors decreed that the nation will attain a 90 percent high school graduation rate by the year 2000.

College continuation rates for 18 to 19 years show trends quite different than those for high school graduation:

- In all three locations, college continuation rates declined between the late 1960s to the early 1970s, remained generally low during the 1970s, and have increased substantially between the late 1970s and 1992.
- The above pattern applies to both whites and blacks except for the years between about 1979 and 1985 when their respective college continuation rates diverged: rates for whites increased sharply while rates for blacks decreased sharply. When the decline for blacks occurred, it happened to central city, suburban and nonmetropolitan blacks alike.

Up, Up and Away . . .

Institutional Charges

Institutional charges include tuition, fees, room and board. They typically comprise from 72 to 88 percent of the costs of attendance for campus residents that are budgeted in student financial aid. Other costs of attendance not directly controlled by higher education institutions are books, supplies, transportation, personal care, medical care, etc.

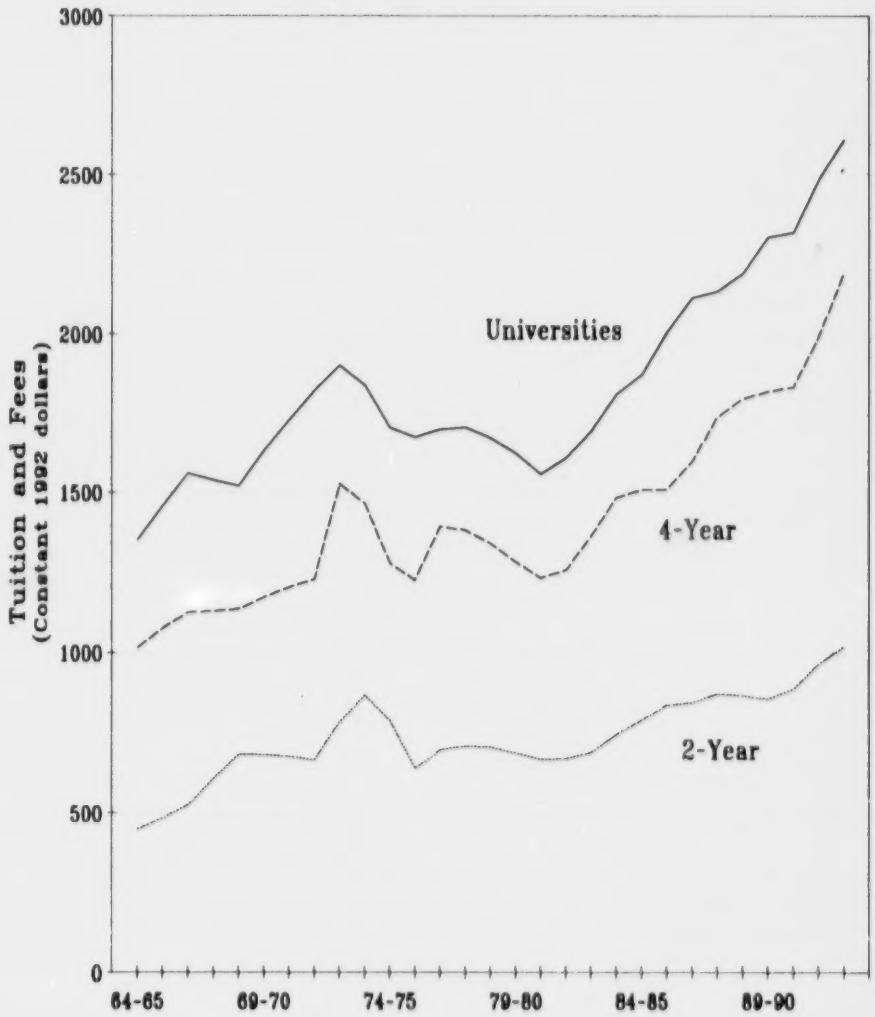
Since the early 1980s average real institutional charges--deflated by the Consumer Price Index--have increased sharply, year after year, far in excess of the rate of inflation. These charges have also increased, and continue to increase, much faster than growth in family incomes.

In this analysis we describe the average charges of public and private higher education institutions over time, by type of charge, and by state in constant 1992 dollars. The data were collected from institutions by the National Center for Education Statistics in annual HEGIS/IPEDS surveys.

The findings identify very large growth in real institutional charges since 1981. The most striking finding from this analysis is the contrast between relatively stable institutional charges between 1964 and 1981 with the sharp escalation in institutional charges that began in 1981 and continues today.

The extraordinary growth in institutional charges for tuition, fees, room and board has clear and pressing consequences for college affordability for most students and their families, and for the student financial aid system that is struggling (and failing) to help students pay these costs when financial need is demonstrated.

Tuition and Fees at Public Institutions
1964-65 to 1992-93



Tuition and Fees

Public institutions: Tuition and fee charges in public universities, other 4-year colleges and 2-year colleges are shown in constant 1992 dollars in the first figure for the 29 years between 1964-65 and 1992-93. Tuition and fee charges increased in universities from $1349 in 1964-65 to $1900 in 1972-73, then dropped to $1558 in 1980-81. Since then public university tuition and fees have risen steadily and substantially to $2610 by 1992-93.

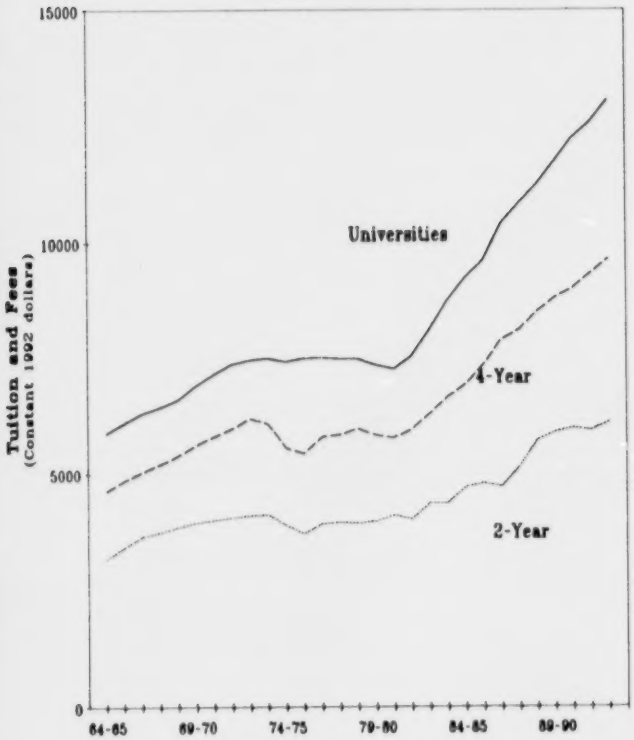
Other public 4-year colleges follow a similar pattern, although their tuition and fee charges average about $300 to

$500 less than those of public universities. In 1992-93 average public 4-year tuition and fees were $2190.

Public 2-year colleges show not only lower tuition and fee charges, but the constant dollar increase has been considerably less than those of public senior institutions. In 1992 public 2-year tuition and fees averaged $1018. Since 1980-81, while public university tuition and fees increased by $1052 and other public 4-year colleges increased theirs by $961, public 2-year college tuition and fees increased by $352.

Private institutions: Tuition and fee charges in private universities, other 4-year colleges and 2-year colleges are shown in the figure below for the years between 1964-65 and 1992-93. A pattern resembling the pattern for public institutions is apparent: increasing real charges between 1964-65 and the early 1970s, a flattening through 1980-81, followed by sharp annual increases through the present.

Tuition and Fees at Private Institutions
1964-65 to 1992-93

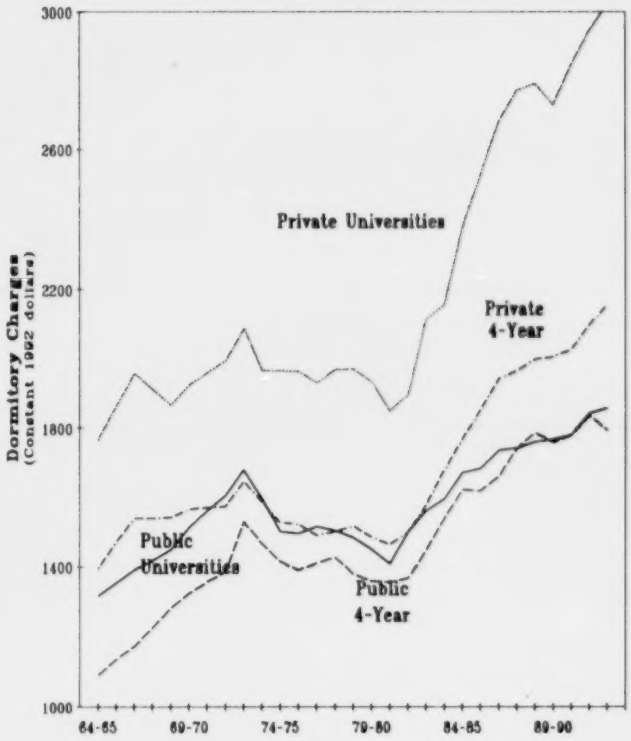


Since 1980-81, average real tuition and fee charges have increased by $5764 in private universities, by $3864 in 4-year colleges, and by $1992 in private 2-year colleges. In 1992-93 average tuition and fee charges at Private universities were $13,043, at private 4-year colleges they were $9636, and at private 2-year colleges they were $6101.

Dormitory Rooms

The average dormitory room charges at public and private universities and 4-year colleges between 1964-65 and 1992-93 are shown in the third chart. The pattern is very similar to institutional charges for tuition and fees. For all types of senior institutions, dormitory room charges increased in real terms between 1964-65 and 1972-73, then declined through 1980-81, and have increased by between 31 percent and 63 percent since then.

Dormitory Charges
1964-65 to 1992-93



The highest dormitory room charges and greatest increases since 1980-81 have been in private universities and 4-year colleges. In 1992-93 dorm rooms cost $3022 at a private university, $2157 at a private 4-year college, $1858 at a public university, and $1792 at a public 4-year college. In constant dollars, since 1980-81 dorm charges have increased by $1173 at private universities, $694 at private 4-year colleges, $450 at public universities, and $437 at public 4-year colleges.

By institutional control and state, dormitory room charges vary enormously. Nationally, public senior institution dorm rates averaged $1820 compared to $2372 in private senior institutions. However, in ten states dorm charges were higher

in public institutions than they were in same-state private institutions. Foremost among these was **California** where public institution charges averaged $1500 greater than those in private institutions.

In public senior institutions, dormitory room charges range from $818 in **Oklahoma** to $4319 in **California**--a range of greater than five to one. Despite the priciness of **California** dorm living, only five states had public senior institutions averaging greater than $2500: **Nevada** ($2863), **New Jersey** ($2768), **Vermont** ($2675), **Rhode Island** ($2578), and **Maryland** ($2532). Besides **Oklahoma**, state bargains are found in **North Dakota** ($872), **South Dakota** ($1046), **Utah** ($1227), **Nebraska** ($1228), **Kentucky** ($1291), and **Mississippi** ($1299).

Among private senior institutions, dorm charges range from $894 in **Montana** to $3266 in **Connecticut**. The most expensive private senior institutions are found in **Massachusetts** ($3241), **New York** ($3144), **Rhode Island** ($3098), **Maryland** ($3092), and **Hawaii** ($3022).

Board

The data collected from institutions by the National Center for Education Statistics on board charges are not strictly comparable over time. Between 1964-65 and 1985-86 board charges are reported on a seven-day basis, and data beginning in 1986-87 are reported on a 20 meals per week basis. Despite this relatively minor limitation, reported data are used here.

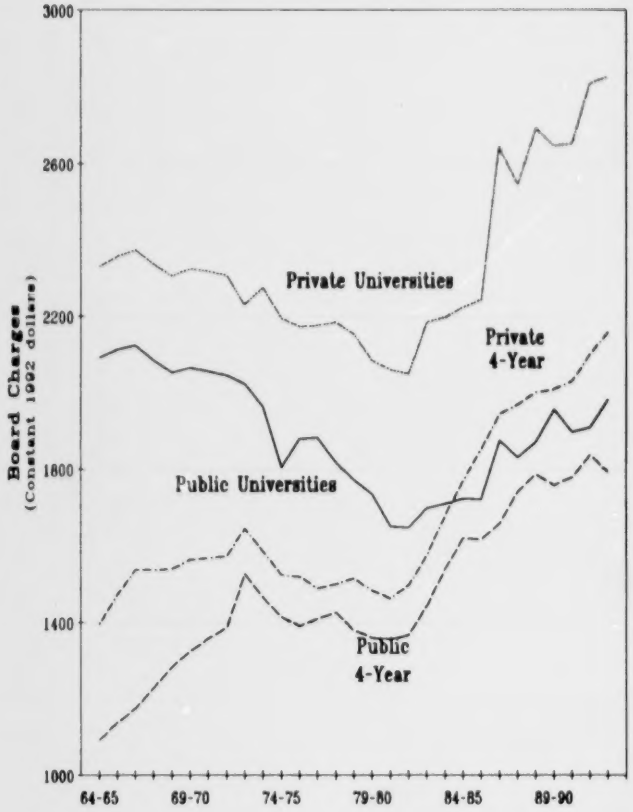
In 1992-93 institutional board charges were $2827 at private universities, $2204 at private 4-year colleges, $1981 at public universities, and $1792 at public 4-year colleges.

The trends and patterns for institutional board charges parallel each other more by institutional type than control. Average public and private university board charges declined substantially between the mid-1960s and 1981-82, and increased thereafter. Since 1981-82, real private university board charges have increased by $779, while public university board charges have increased by $334.

Since 1980-81 board charges by private 4-year colleges have risen faster than charges in public 4-year colleges. Between 1980-81 and 1992-93, correcting for inflation, private colleges increased board charges by $501 while public colleges increased board charges by $437.

In 1992-93 public senior institutional charges for food and service were greatest at **Hawaii** ($2881), followed by **Montana** ($2495), **California** ($2443), and **Rhode Island** ($2360). They were least in **Mississippi** ($1450), **Oklahoma** ($1464), **Minnesota** ($1474), and **South Dakota** ($1498). We do not know of a student survey of food service satisfaction to correlate with these institutional charges, although we know this is a sensitive issue with students on many college campuses.

Board Charges (7 day basis)
1964-65 to 1992-93

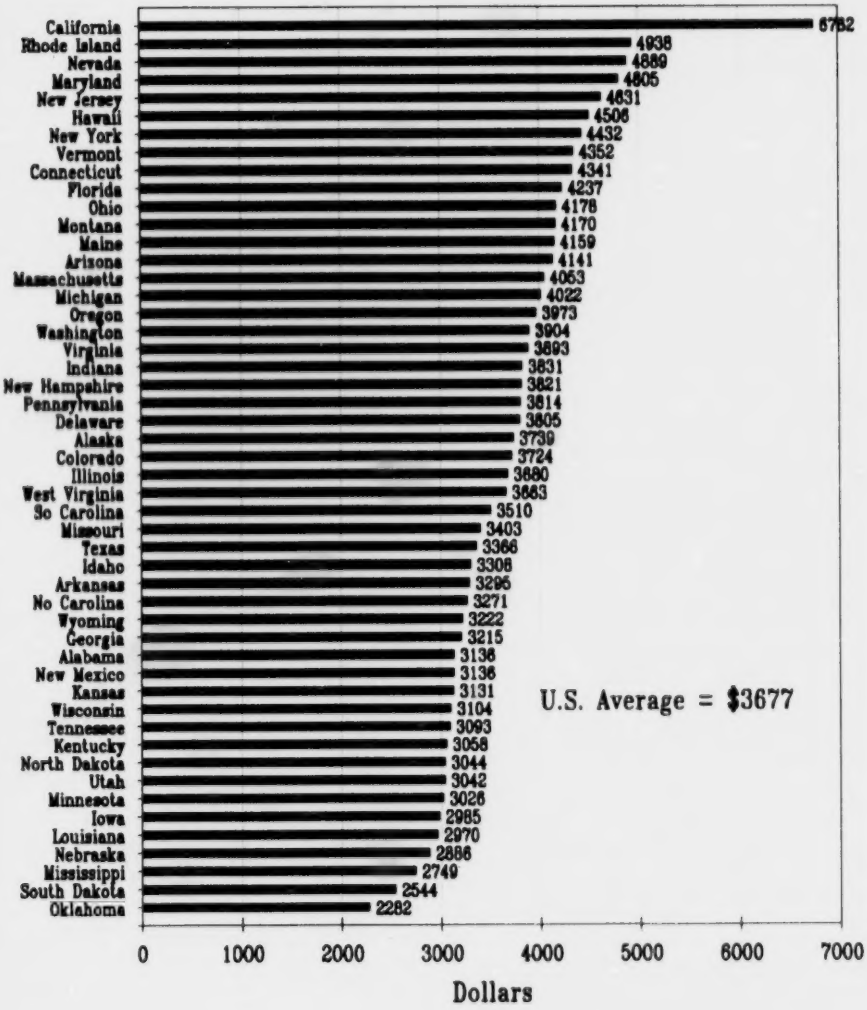


Living Costs

Because of the likelihood that dormitory housing and food service costs are intermingled and their accounting might differ from state to state, we have combined the two to examine how states compare in their public senior campus living costs.

In 1992-93 the combined dormitory room and board charges at public senior institutions ranged from $2282 in **Oklahoma** to $6762 in **California**. That is, nine months of campus living cost three times as much in California as it did in Oklahoma. But even if one excludes these extreme observations, the ranges are still very great. Living costs in **Rhode Island** senior public institutions ($4938) were still nearly twice those of **South Dakota** ($2544).

Room and Board Charges in Public 4-Year Colleges and Universities 1992-93



Conclusions

In constant dollar terms, institutional charges for tuition, fees, room and board increased between 1980-81 and 1992-93 by $1831 in public universities, $1623 in public 4-year colleges, $7707 in private universities, and $5060 in private 4-year colleges.

These increases in both public and private institutional charges are mind boggling.

- **These increases are entirely inconsistent with what had occurred in institutional charges between 1964-65 and 1980-81.** Before 1981 institutional charges in constant dollars increased at an average annual rate of less than 1 percent. Then, between 1981-82 and 1992-93, real institutional charges increased at average annual rates of 2.8 to 4.5 percent.
- **These increases are entirely inconsistent with general inflation as measured by the Consumer Price Index.** Between 1980 and 1992 the Consumer Price Index measuring general inflation in the economy increased by 70 percent. During this period institutional charges (current dollars) increased by 138 percent in public universities, 137 percent in public 4-year colleges, 188 percent in private universities, and 167 percent in private 4-year colleges.
- **The increases in institutional charges bear no relation whatsoever to increases in the resources of families to pay them.** In constant dollars median income of families increased by less than 3 percent between 1980 and 1992. During the same period constant dollar institutional charges increased by 40 percent in public universities, 39 percent in public 4-year colleges, 69 percent in private universities, and 57 percent in private 4-year colleges.

Some of the reasons why these extraordinary cost increases have occurred are better known than others. For example, tuition and fee increases are clearly driven by the shift in responsibility for financing higher education from taxpayers generally to students and their families as consumers of higher education. This is primarily true of public higher education. Higher education has received a declining share of state and local government expenditures since 1982, and federal government expenditures since 1981. As a direct consequence, the share of personal consumption expenditures devoted to higher education has risen since 1978 to offset these losses.

Why institutional charges for dormitory rooms and board suddenly jumped after 1980-81 is not so clear. One suggestion is that institutions that built dormitories and food service facilities after World War II are now having to remodel and upgrade their

facilities. Expressed another way, this means that institutions did not set aside funds for depreciation while facilities were being used and depreciated. Today's students are now being charged higher dormitory and food service rates to compensate for failures to properly charge earlier generations of students for depreciation of the facilities they used while on campus.

Finally, it should be noted that these extraordinary increases in institutional charges since 1980-81 have not escaped the attention of federal policy makers. When Congress reauthorized the Higher Education Act in 1992, it created a "National Commission on the Cost of Higher Education." This Commission is charged to study, make findings, and make recommendations regarding the following:

(1) the increase in tuition costs compared with other commodities and services as well as methods of reducing increased tuition costs,
(2) trends in college and university administrative costs as well as other costs and means of reducing such increased costs,
(3) the development of a standardized annual report that colleges and universities shall distribute which details the administrative costs, instructional costs and capital costs of such colleges and universities,
(4) the extent to which federal, state and local regulations contribute to increased tuition costs and the increase in higher education,
(5) the establishment of a mechanism for a more timely and widespread distribution of data on tuition trends and other costs of operating colleges and universities,
(6) the extent to which the lack of student financial assistance programs has contributed to increased tuition costs, and
(7) other related topics determined to be appropriate by the Commission.

Stay tuned.

State Appropriations for FY94 and FY95: Better for Higher Education But Still Not a High State Priority

The reports on state funding for higher education for FY1994 and expectations for FY1995 are in and the results suggest somewhat better treatment in state budgets for both fiscal years compared to the last several years of retrenchment.

Moreover, state student financial aid programs are clearly receiving very high priority attention from state policy makers both in FY94 and again for FY95.

These and other important findings are reported in several important surveys recently released by the National Conference of State Legislatures.

- The FY1994 survey of state appropriations still shows higher education at the bottom of most state fiscal priorities. Higher education received a smaller share of state funds in FY1994 than it did in FY1993, a trend in place for at least the last fifteen years. But growth in state revenue and reduction in demand for AFDC funding releases some funds for higher education.

- Our earlier survey of state grant funding (see October issue of OPPORTUNITY) showed an average increase of 11.7 percent in state grant funding for FY1994 over FY1993.

- The new NCSL *Issues Outlook 1994* indicates that student financial aid issues will be addressed in the current legislative session in more states than any other higher education issue.

FY1994 Appropriations

The National Conference of State Legislatures surveyed state legislative fiscal officers in September 1993. The survey found that states appropriated $40.4 billion for higher education in FY1993 and $41.5 billion for FY1994--an increase of $1.1 billion or 2.9 percent.

Between these two fiscal years, state appropriations increased by 4.6 percent. That means higher education's share of state appropriations declined again in FY1994, just as it has for nearly every year since 1982 (as measured by the National Income and Product Accounts) or since 1968 (as measured by the Census Bureau's survey of

state government expenditures). In FY1993 state budgeting, everything--Medicaid, AFDC, prisons, and K-12 education--had a higher priority than did higher education.

In FY1994 state appropriations, higher education actually received larger percentage increases in state funding than did AFDC and K-12 education. Medicaid continued to receive priority funding attention. But the big winner was prisons. Following a 4.5 percent increase in FY93 over FY92, prisons received a 9.7 percent increase in FY94 over FY93. Such is the mood of the country.

Eckl, C. L., Hayes, K. C., and Peréz, A. (November 1993). *State Budget Actions 1993.* Denver: National Conference of State Legislatures. $35.

In FY1994 eleven states reduced their appropriations for higher education.

The largest losers were:

- **Oregon** (-11.9 percent) which continues to flounder trying to implement a property tax rollback that shifts local funding responsibilities to the state without increasing state taxes,
- **California** (-8.0 percent) which is still mired in recession--although not so deeply that it couldn't find funding to increase prison appropriations by 15 percent, and
- **North Dakota** (-4.0 percent) which seems to have had plenty of money for AFDC, Medicaid, and prisons.

California alone provides nearly 12 percent of all state appropriations for higher education. Thus, removing California's $419 million reduction in appropriations for higher education alters the national picture. With California, state appropriations increased by 2.9 percent. But removing California, state appropriations increased by 4.3 percent.

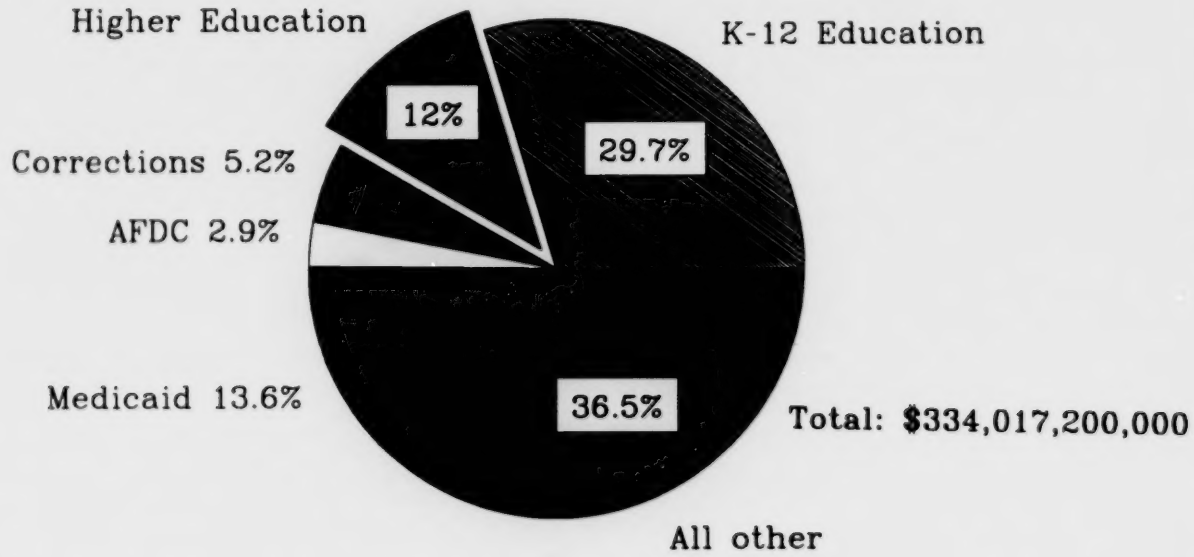
In only ten states did higher education increase its share of state appropriations. The largest gainers were **Rhode Island, Montana, Massachusetts, Connecticut,** and **Georgia.** There appears to be some damage control in these states as previous retrenchments were quite severe.

In the other 42 others (counting the District of Columbia and Puerto Rico), higher education's share of state appropriations decreased. Compared to general fund appropriations, the largest losses in appropriations shares were in **Wyoming, Oregon, Kansas, North Carolina,** and **Minnesota.**

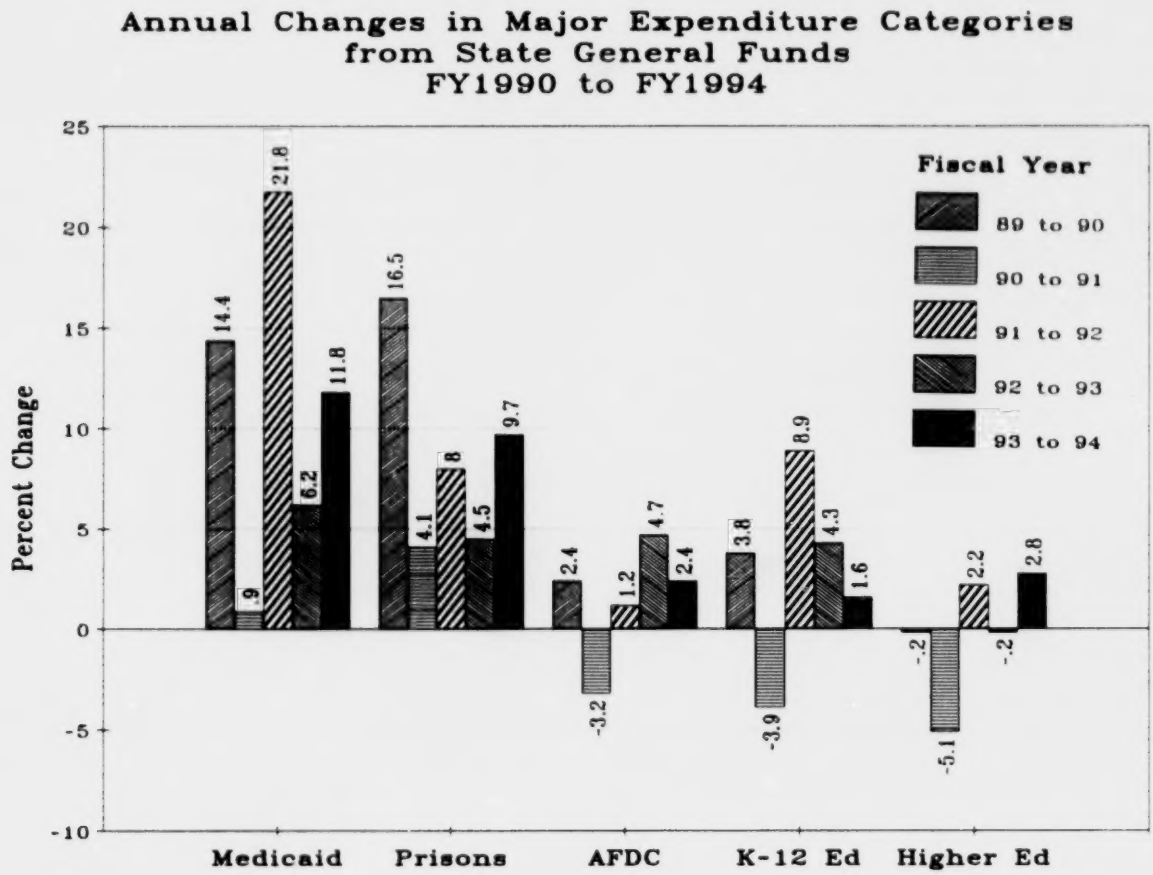
The NCSL report notes:

> *Despite some improvements in individual states, higher education funding nationally is shrinking as a share of state general fund spending. As recently as FY1989, higher*

State General Fund Appropriations FY1994



Percentage Change in State General Fund and Earmarked Fund Appropriations for Major Expenditure Categories and State, FY1993 to FY1994						
State	Higher Educ	K-12 Educ	Prisons	AFDC	Medicaid	Genl Fund
Georgia	12.7%	4.5%	13.8%	6.5%	19.5%	8.7%
New Hampshire	11.7	14.0	10.0	-0.4	-23.8	17.5
Florida	9.5	8.0	5.4	3.8	20.6	11.5
Massachusetts	9.4	11.1	1.5	0.8	4.2	4.7
Texas	8.7	1.3	18.0	7.9	19.7	8.4
Connecticut	8.1	6.2	19.0	4.7	5.5	3.4
New Mexico	7.3	8.6	2.3	14.6	9.0	10.4
New York	7.2	4.0	2.1	7.1	7.9	4.4
North Carolina	7.1	2.0	6.7	13.2	23.7	17.2
Ohio	7.0	3.7	18.4	6.0	18.8	8.2
South Dakota	6.7	3.3	11.3	8.8	19.1	6.8
Pennsylvania	6.6	2.7	20.6	5.4	-14.6	8.2
Puerto Rico	6.2	8.2	17.7	NA	10.5	9.2
Tennessee	6.2	10.8	3.3	-8.0	-17.3	6.2
Kansas	6.2	32.2	4.7	2.9	1.2	17.1
New Jersey	6.1	8.5	2.4	-0.8	8.4	4.7
Alabama	5.8	7.0	0.0	0.0	17.9	6.8
Mississippi	5.6	10.0	7.6	1.8	12.8	6.7
Montana	5.4	-0.9	11.2	8.0	17.0	-3.4
Kentucky	5.0	4.5	9.1	7.4	15.7	6.9
Nevada	4.4	5.1	10.3	12.3	-7.7	6.8
Delaware	4.1	6.9	5.8	8.6	23.8	9.2
Rhode Island	4.1	4.3	0.5	-5.8	-9.6	-6.3
Wisconsin	4.0	7.0	13.0	0.8	12.7	6.3
Hawaii	3.6	7.2	-0.4	NR	NR	4.6
Utah	3.4	7.0	7.3	9.6	15.5	5.2
Illinois	3.3	4.4	9.6	4.9	6.6	4.5
Iowa	2.8	4.0	6.3	-7.1	14.1	2.2
Colorado	2.6	11.1	9.6	5.4	3.2	5.6
Idaho	2.6	4.6	17.9	-6.0	11.9	5.0
Indiana	2.5	3.0	0.2	8.0	-2.1	5.5
Alaska	2.3	4.6	0.9	6.9	22.9	9.2
Missouri	1.7	4.4	3.3	0.0	11.4	3.7
Virginia	1.4	3.0	9.4	1.1	8.1	5.3
Arizona	1.3	4.3	17.7	6.3	10.4	3.4
Nebraska	1.2	4.5	9.7	16.1	[illegible]0.4	-1.9
West Virginia	0.9	2.8	5.6	0.8	-12.7	4.6
Arkansas	0.8	4.1	15.5	0.6	9.9	6.0
Minnesota	0.4	13.4	12.4	3.0	15.6	8.5
Maine	0.2	-6.7	13.9	-2.2	12.4	0.4
Wyoming	0.0	13.2	0.0	0.0	0.0	23.4
Washington	-0.2	4.5	28.6	0.7	15.6	8.2
Michigan	-0.3	1.0	14.3	-3.2	16.1	3.8
Vermont	-0.4	-0.4	11.9	-5.7	7.8	2.2
Maryland	-0.6	-2.3	2.9	-8.5	3.3	1.6
South Carolina	-0.6	4.1	2.5	4.8	9.6	7.6
Oklahoma	-1.5	6.1	-0.4	-1.5	-0.9	1.0
Louisiana	-2.5	1.3	-3.3	12.0	38.4	-0.7
Dist of Col	-2.9	0.5	-10.5	-1.8	1.3	-2.1
North Dakota	-4.8	4.0	16.4	18.2	16.7	4.0
California	-8.0	-15.6	15.3	0.9	-2.9	-6.3
Oregon	-11.9	3.9	3.5	9.4	9.4	4.6



education accounted for 14 percent of the states' total general fund budgets. For FY1994, the share is expected to decline to 12 percent. Unlike other state programs, this is not happening because states are shifting to earmarked funds to support higher education but because higher education is being squeezed out by other state spending needs, especially Medicaid. Because higher education has another source of funds--tuition and fees--it is especially susceptible to budget reductions.

The NCSL report further notes:

In some states, the outlook for higher education is not promising. If fiscal problems persist or if certain areas of the budget continue to grow much faster than revenues, higher education will remain vulnerable.

(Although state funding for higher education increased by 2.9 percent in FY1994, our October survey of state funding for the larger state need-based student financial aid programs found FY1994 funding increased by 11.7 percent over FY1993.)

FY1995 Outlook

Lest we in education delude ourselves into believing political claims that education is each state's top budget priority, we offer here *State Policy Report*'s model of how state spending priorities are actually determined.

Step 1: Decide on Taxes: Major tax changes aren't likely in most states in 1994. So the revenue side of budgets will be set by the estimates of what existing taxes will raise.

Step 2: Subtract Uncontrollable Items: These are debt service, increased costs associated with full-year implementation of changes made for part of this year, and a collection of miscellaneous items.

Step 3: Subtract the minimum feasible for corrections and Medicaid: Underbudgeting for these has adverse consequences, but are often driven by numbers of recipients and prisoners, federal rules and court decisions.

Step 4: Compare the amount left over with the costs of all other current programs: In most large states revenues will be a little short, so some trimming of current services

will be necessary.

State Policy Reports goes on to note that "those interested in state government spending, particularly education, aren't likely to like state budgets in 1994 . . . With exceptions, the budget allocations in most states are likely to be set by a multi-step process with the amounts available for education basically what is left after other decisions are made." *State Policy Reports* expects prisons to be the big winners in the FY1995 budgeting process in the states.

State Policy Research, Inc. *State Policy Reports*. December 1993, first of two issues. Columbus, Ohio. $325 per year.

The National Conference of State Legislatures surveyed legislative leaders and committee chairs in October and November to identify upcoming policy issues in the states. The results were published in January.

"In many states, legislatures have placed severe fiscal pressures on higher education because of overall poor state economies. These largely fiscal decisions have forced the reconsideration of a whole set of higher education policy issues dealing with tuition, enrollment, faculty, access and quality."

Issues Outlook 1994, A Survey of Current State Legislative Priorities. Denver: National Conference of State Legislatures. $35.

The immediate fiscal outlook of legislative leaders is helped by improving state economies--hence state revenues--and balanced budgets. Unlike recent years when all legislative attention was devoted to keeping state budgets in balance, at least the recession-induced problems of the last few years are behind them.

However, looking three to five years ahead, half of all state legislative leaders expect natural revenue growth--without tax increases--will not be adequate to finance current program expenditure commitments. This is called a chronic or structural fiscal weakness, and leads legislative leadership to seek fundamental changes in the design and delivery of state government services.

Higher education is widely recognized to have been especially vulnerable to budget cuts for the last several years because tuition increases were available to offset cutbacks in state support for institutions. The improving economy relieves some of this funding pressure, except perhaps in **Oregon, Montana**, and some other states. State legislative leaders will be focusing on accountability and efficiency in their state universities, community colleges, and student financial aid programs.

In the NCSL survey of higher education policy issues likely to be addressed by the states in 1994, the most frequently cited area was student financial aid. The proportion of responding states citing each policy area in higher education were as follows:

Student financial aid	**70%**
Community colleges	**66%**
Governance restructuring	**38%**
Incentive funding	**38%**
Faculty salaries	**31%**
Enrollment limitations	**28%**
Faculty workloads	**28%**

The states likely to address student financial aid policy in 1994 that were identified in the NCSL survey were: **Alaska, California, Colorado, Connecticut, District of Columbia, Delaware, Florida, Kansas, Louisiana, Maine, Massachusetts, Michigan, Minnesota, New York, North Carolina, Rhode Island, Tennessee, Virginia, Washington,** and **Wyoming.**

As the NCSL staff see it: "Student financial aid will ... continue to pose challenges for states. As tuition rises, the availability of adequate student financial aid becomes increasingly important. Respondents in 19 states and the District of Columbia indicate they will be struggling with student financial aid policy in 1994."

Those states likely to be reviewing enrollment limitations are: **California, Colorado, Delaware, Florida, Utah, Kansas, Kentucky,** and **Washington.**

Our View

State budget processes have treated funding for public higher education harshly for many years. We find it easy to criticize the priorities of governors and legislators when neither expenditures for Medicaid nor corrections indicate much understanding about the investment requirements for future economic growth. The labor market signals are unequivocal: only those who receive postsecondary training or education are likely to advance their private and our collective welfare.

Among the consequences of underfunding higher education are many institutional responses that curtail the quality, quantity and affordability of educational opportunity for young people.

But this generally gloomy view of state budget priorities is tempered by a significant bright light. While financial responsibilities for higher education are being shifted to tuition revenues from students, many states have assumed responsibility for increasing state-funded need-based grant programs to cover a substantial part of the increased costs of higher education that are being shifted to students. A useful rule of thumb for states is to recycle about $.50 of each dollar raised by tuition back into state grants to needy students. **-TGM**

Think About This for a While . . .

Average Length of Life by Race and Sex

The growing inequality between racial/ethnic groups in the United States has many measures. Here, we examine one of the most fundamental measures of life: its length, measured in years, for male and female whites and blacks.

The findings are profoundly disturbing. Not only do whites live substantially longer than do blacks. But the gap between whites and blacks, which closed between 1970 and 1983, began to reopen in 1985. By 1989 the gap was back to where it had been in 1974.

Our data are from life tables published by the National Center for Health Statistics, a unit of the U.S. Department of Health and Human Services. Data for blacks has been published for the years 1970 through 1989, although the data for whites has been reported since 1900. Data for non-whites is available for the entire period between 1900 and 1989.

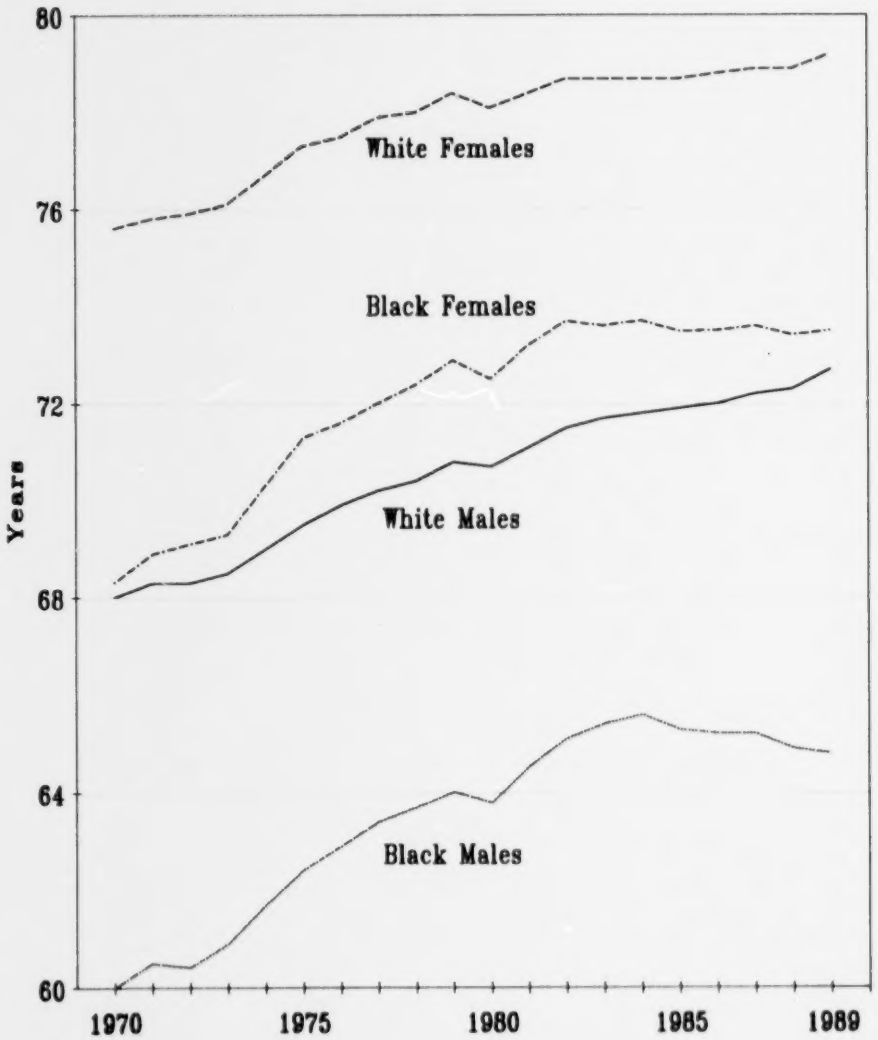
National Center for Health Statistics. *Vital Statistics of the United States, 1989; Vol. II, Section 6.* Washington: Public Health Service, 1992.

In 1970 blacks died on average at 64.1 years, compared to 71.7 years for whites. Blacks died 7.6 years earlier than did whites. By 1983 the difference had closed to 5.6 years. The average age at death for whites had increased to 75.2 years, compared to 69.6 years for blacks.

Then, beginning in 1985 blacks started falling further behind. By 1989--the most recent data--the difference was 6.8 years, or the difference that existed in 1974. In 1989 the average length of life in years had risen to 76.0 years for whites, but dropped to 69.2 years for blacks.

The estimated average length of life in years for male and female whites and blacks is shown in the chart on this page. The years shown are 1970 through 1989. These data show the

Average Length of Life in Years
1970 to 1989



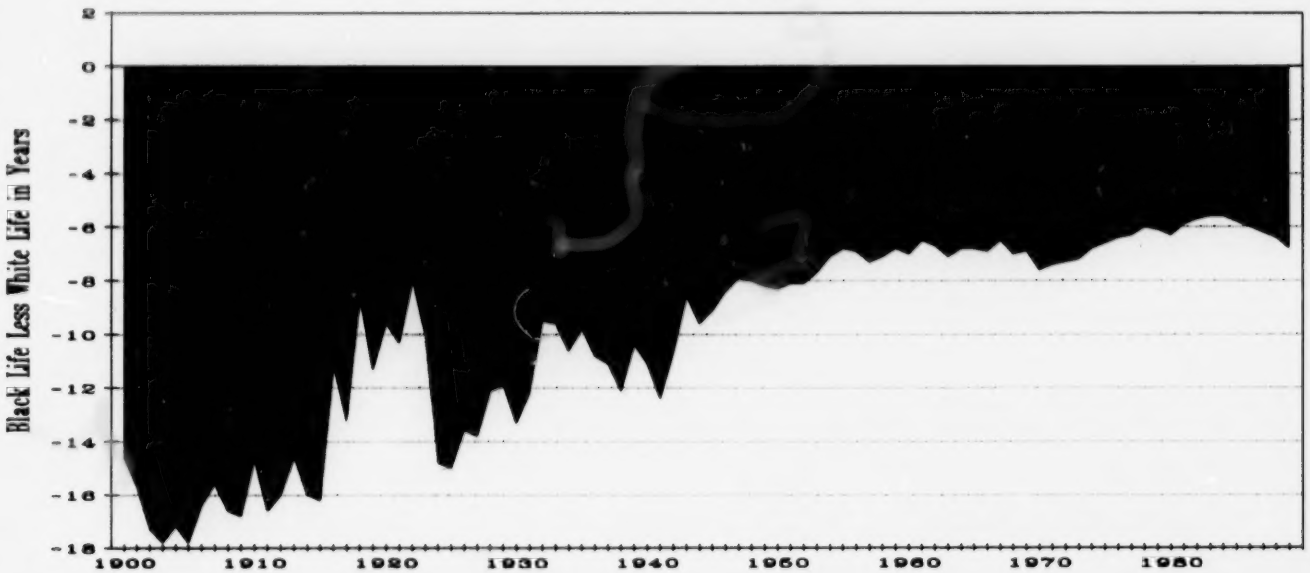
historic difference between females and males, both over the two decades shown and for both whites and blacks.

For all four groups, substantial gains in length of life over the last two decades are evident. For white women, between 1970 and 1989 the average length of life increased by 3.6 years. For white males the gain was 4.7 years, for black females 5.2 years, and for black males 4.8 years. However, for blacks the gains occurred entirely between 1970 and 1984. Since 1984 the average length of life *increased* by 0.5 years for white females and 0.9 years for white males. For black females the average *declined* by 0.2 years, and for black males *declined* by 0.8 years.

Finally, we can take an even longer perspective on the disparity between the length of lives of blacks compared to whites with the life table data published by the National Center for Health Statistics. Data on non-whites are available back to 1900. Until the relatively recent arrival of Asians in large numbers, non-whites were primarily blacks.

Under this accommodation to changes in data definition, the chart of this page shows dramatic improvement in closing the gap in length of life between blacks and whites. Between 1905 and 1985 the gap closed from 17.8 years to 5.6 years. The substantial progress in closing this gap during that period stands in contrast to the widening between 1985 and 1989.

Difference Between Black and White Length of Life
1900 to 1989



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Postsecondary Education
OPPORTUNITY

The Mortenson Report on Public Policy Analysis of Opportunity for Postsecondary Education

Number 21 | **Iowa City, Iowa** | **March 1994**

Financial Need of College Freshmen Under the New Federal Methodology

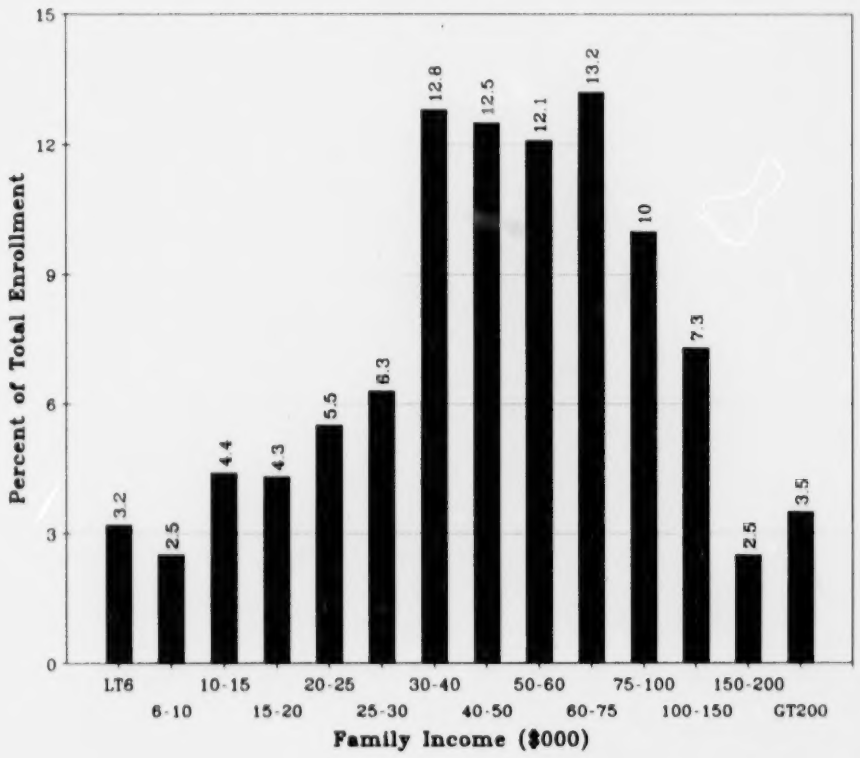
The current academic year marks the advent of the Federal Methodology (FM) for calculating each aid applicant's expectation to contribute to the costs of his or her postsecondary education. In this report we use the new FM and estimates of college attendance costs based on institutional surveys by The College Board and the National Center for Education Statistics. They are combined to calculate the distribution of financial need across family income levels. We compare this distribution of financial need by family income levels to the distribution of fall 1993 college freshmen by family income levels as reported by UCLA.

The results show that many freshmen in all sectors are full-need cases, most are partially needy, and some have no demonstrated need for financial aid to attend college. The distribution of these three groups of freshmen vary by institutional type and control:

- *Public universities enroll the largest proportion of freshmen who are not financially needy.*
- *Public community colleges have the largest proportion of freshmen who are full-need cases, and private universities have the smallest .*
- *Private 4-year college freshmen are more often financially needy than are freshmen enrolled in any other type of institution.*

These and many other important findings are gleaned from the following analyses. We begin with a description of family incomes by institutional type and control.

Distribution of College and University Freshmen by Family Income Levels 1993-94



Family Income

In need analysis for financial aid, the family has the first responsibility for financing the higher education of its children to the extent of its resources.

The above chart shows the distribution of first-time, full-time American college freshmen in the fall of 1993 as reported by UCLA in its annual national freshman survey. Median parental income for these freshmen was about $44,100. About 14 percent of all freshmen came from families with incomes of less than $20,000 per year (corresponding to the bottom quartile of family income for all high school graduates). About 33 percent of all freshmen came from families earning more than $60,000 per year, or roughly the top quartile of high school graduates.

Family Contribution

With the 1992 Education Amendments, Congress combined its own Pell Grant eligibility formula with the Congressional Methodology (CM) originally developed by financial aid professionals into a single formula. The CM had been taken over by Congress in the 1986 Education Amendments from the Uniform Methodology developed by financial aid professionals in 1974.

The new formula is widely known as the Federal Methodology both because it so clearly reflects a determination of how Congress intends to see federal student aid dollars spent, and because so few financial aid officers agree that the FM any longer reflects a fair and reasonable financial expectation from families according to their ability to pay from their own income and assets.

Despite the continuing controversies concerning need analysis formulas, we have used the new Federal Methodology for 1993-94 to calculate an expected parental contribution (EPC) at different levels of family adjusted gross income (AGI).

Our calculations were performed with the New York State Higher Education Services Corporation's ABLE-2 software. The assumed case conditions are: family size of 4, 1 in college full-time for a nine month academic year, and no contribution from assets.

Expected Parental Contributions under Federal Methodology 1993-94

AGI	EPC
$0	$0
$5000	$0
$10,000	$0
$15,000	$0
$20,000	$0
$25,000	$481
$30,000	$1189
$35,000	$1897
$40,000	$2680
$45,000	$3655
$50,000	$4850
$55,000	$6067
$60,000	$7405
$65,000	$8757
$70,000	$10,110
$75,000	$11,462
$80,000	$12,815
$85,000	$14,167
$90,000	$15,519
$95,000	$16,872
$100,000	$18,224
$110,000	$20,812
$120,000	$23,376
$150,000	$31,202
$200,000	$44,362

College Attendance Costs

In conventional need analysis, the expected family contribution is deducted from a college budget to determine financial need. The college budget includes both direct costs of attendance (tuition, fees, books and supplies) as well as living costs while enrolled (food, housing, transportation, personal and medical care, etc.).

The College Board surveys institutions to collect and publish national data on college attendance costs used in financial aid. Unfortunately, the Board's data combine universities with relatively high institutional charges and 4-year colleges with lower institutional charges. This is true in both public and private sectors. Therefore, we have used data from the National Center for Education Statistics to develop separate university and 4-year college budgets in both public and private sectors.

Our estimates of 1993-94 college budgets by institutional type and control appear at the top of the next page. They are based on The College Board's survey results, with our own adjustments in both public and private 4-year institutions for institutional charges using NCES data.

Financial Need

The difference between the college budget and the expected family contribution is financial need.

For the general case we are using for illustrative purposes here, all students from families earning less than about $22,000 per year are full-need cases,

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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement
This newsletter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this newsletter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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College Budgets, 1993-94

	Public Institutions					Private Institutions					
	2-Year	4-Year		University		2-Year		4-Year		University	
College Budgets	Cmtr	Rsdnt	Cmtr	Rsdnt	Cmtr	Rsdnt	Cmtr	Rsdnt	Cmtr	Rsdnt	Cmtr
Tuition and fees	$1229	$2481	$2481	$2827	$2827	$6175	$6175	$10,257	$10,257	$13,953	$13,953
Books and supplies	533	552	552	552	552	566	566	556	556	556	556
Room and board	1643	3583	1601	4048	1601	3980	1589	4598	1722	6123	1722
Transportation	923	557	870	557	870	487	890	498	824	498	824
Other	1044	1246	1259	1246	1259	934	970	974	1073	974	1073
Total	$5372	$8419	$6763	$9230	$7109	$12,142	$10,190	$16,883	$14,432	$22,104	$18,128

regardless of where they enroll. That is to say, their expected parental contribution from income is zero. Their financial need is equal to the college budget wherever they enroll.

Above $22,000 in adjusted gross family income, students are partially needy up to the point where their expected family contribution equals their college budget. Beyond that point they are no longer financially needy.

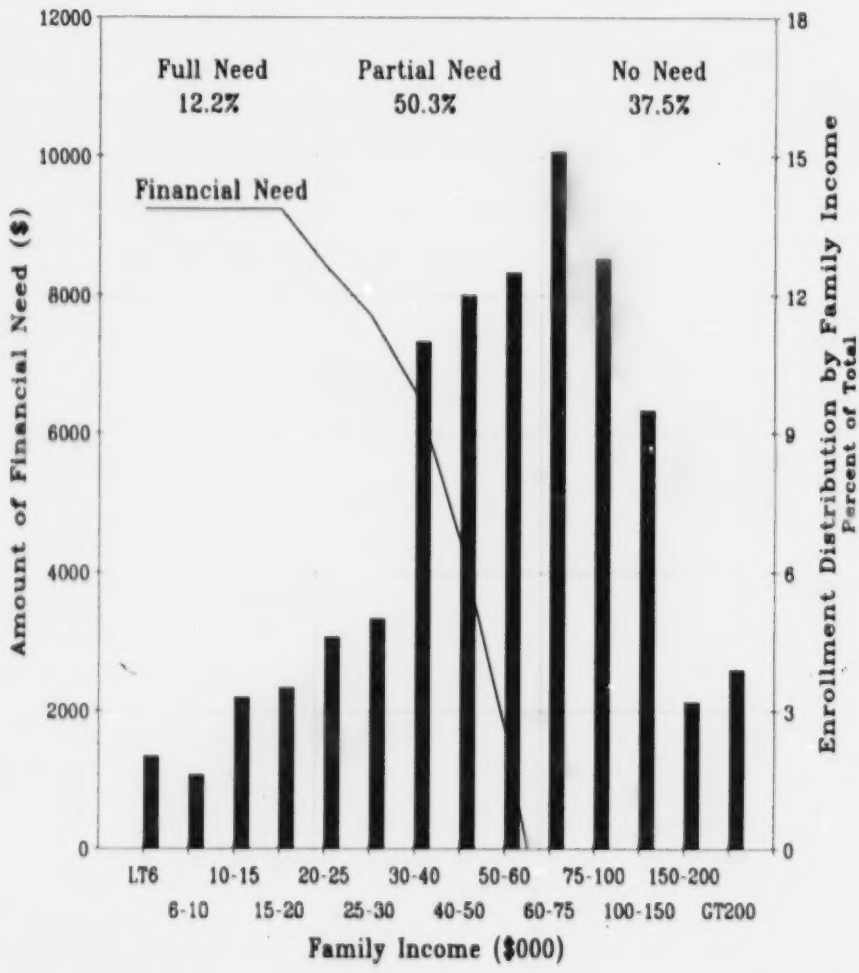
Public Universities

The chart to the right plots both the distribution of public university freshmen by family income levels, and the distribution of financial need by the same intervals of family income.

The results illustrate a typical pattern:

- About 12.2% of enrolled freshmen are full-need cases. Their expected parental contribution is zero. Their need for financial aid equals their college budget of $9230 if they live on campus, or $7109 if they live at home. (About 80 percent of public university freshmen live on campus, 7 percent elsewhere near campus, and 13 percent at home.)
- Another 50.3 percent of public university freshmen are partially needy. Their families can contribute something toward the

Distribution of Public University Freshmen and Their Financial Need by Family Income Levels 1993-94



college budget, but cannot finance all of the college budget alone. They need at least some financial aid to finance college attendance costs.

- Finally about 37.5 percent of all public university freshmen are not financially needy. Their expected parental contributions exceed the costs of college attendance.

Under the assumed student case, the freshmen that come from families able to contribute something toward the cost of education begin at about $22,000 of family income. But up through about $67,000 of family income, the expected parental contribution from income still falls short of the college budget, thus qualifying the freshman for at least some need-based student financial aid. These are the partial need cases.

There are many conditions that can add to or subtract from each family's expected contribution. The conditions that will *add* to the expected parental contribution include:

- Contribution from assets, especially non-home investments.
- Contribution from the student's own income or assets.
- Family size smaller than 4.

The conditions that will *reduce* the expected parental contribution include:

- More than one family member enrolled in college at the same time.
- Family size greater than 4.

Public 4-Year Colleges

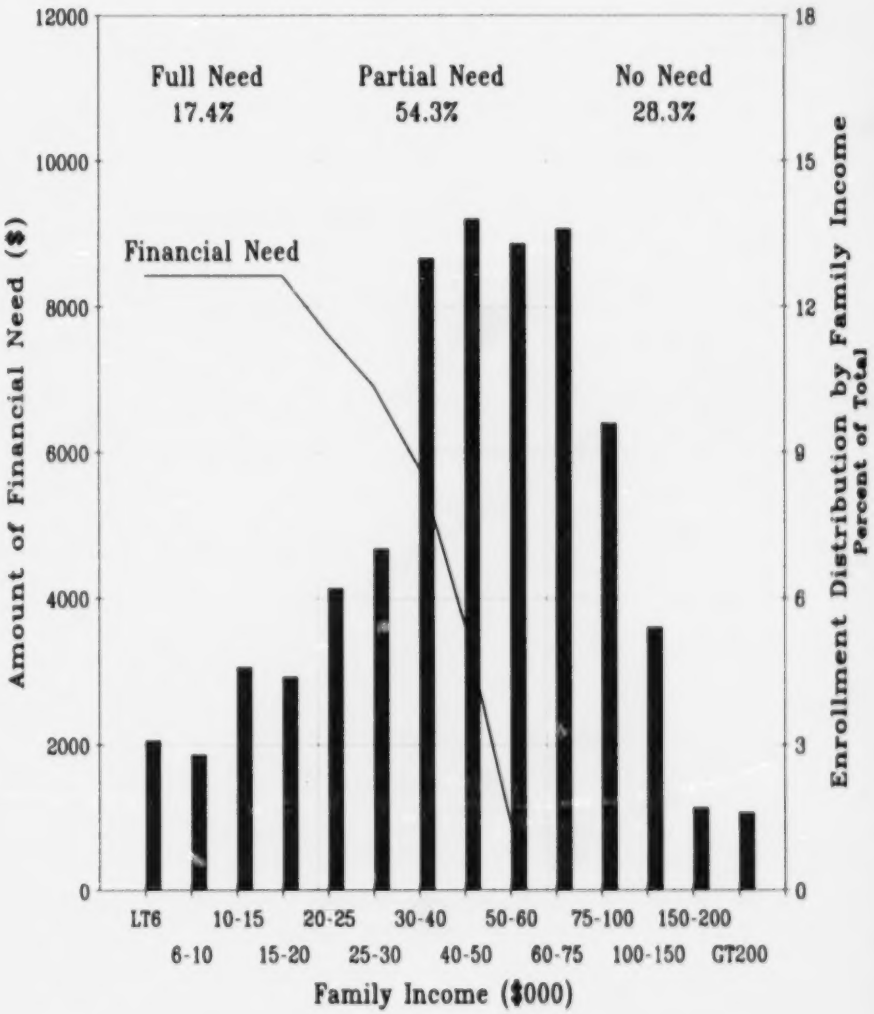
The distribution of freshmen by family income and financial need enrolled in public 4-year colleges is shown in the chart on this page. The usual pattern prevails: some freshmen are full-need, most are partially needy, and some are no-need.

In the fall of 1993 about 71 percent of these freshmen lived in college dormitories, 8 percent lived off-campus, and 22 percent lived at home or with relatives.

Their distribution by family income and financial need was as follows:

- About 17.4 percent of these freshmen were full-need, from family incomes below $22,000 per year. They faced college budgets that averaged $8419.
- About half--54.3 percent--were partially needy. These were freshmen from families with incomes between $22,000 and about $64,000 per year. All needed financial aid to supplement their parent's contribution toward the college budget.
- Finally, 28.3 percent were not financially needy. They came from families with incomes greater than $67,000 per year where the expected parental contribution from need analysis exceeded the college budget of $8419.

Distribution of Public 4-Year College Freshmen and Their Financial Need by Family Income Levels 1993-94

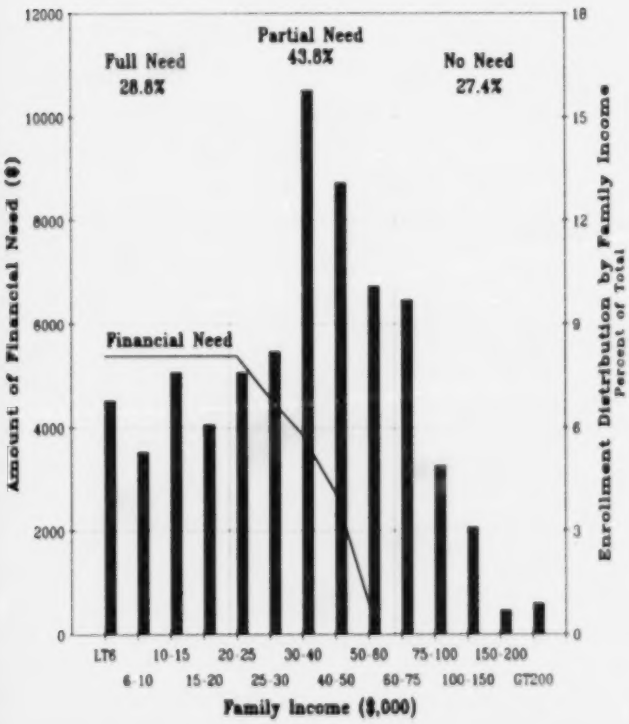


Public 2-Year Colleges

Freshmen enrolled in public 2-year colleges come from the lowest family income backgrounds of any college type. But they also face the lowest college budgets. Thus, the distribution of first-time, full-time public 2-year college freshmen by financial need is similar to the distribution of freshmen enrolled in public universities and 4-year colleges.

In 1993 about 54 percent of community college freshmen lived at home, a quarter in college dormitories, and about 20 percent lived elsewhere. For our analyses here, we have used the college budget for a commuter student living at home. The commuter budget excludes the housing allowance used in resident budgets in this analysis.

Distribution of Public Two-Year College Freshmen and Their Financial Need by Family Income Levels 1993-94



The distribution of public 2-year college freshmen by financial need is as follows for the current academic year:

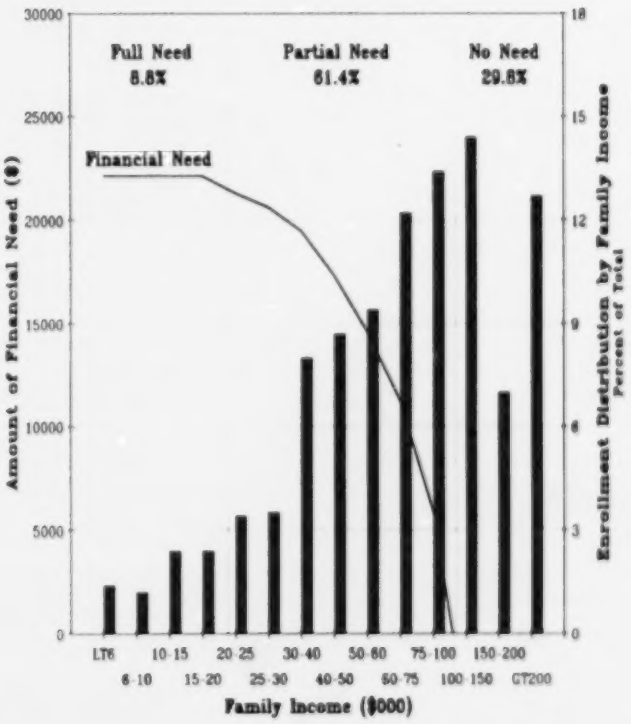
- About 29 percent of the freshmen come from families with incomes below $22,000 per year, and thus have no parental resources to help finance their college budgets of $5372 per year of study. This is a far larger share of the freshman class than is found in any other type of public or private higher education.
- Another 44 percent are partially needy. Their parents can be expected to provide some part of the college budget, but financial aid or student resources will have to make up the rest. Partial need extends to family income of $52,000.
- About 27 percent of public 2-year college freshmen come from families where the EPC is greater than the college budget, and hence are not financially needy.

Private Universities

Freshmen enrolled in private universities come from families with the highest family income backgrounds of any college type or control. But they also face the highest college budgets due to extraordinarily high institutional charges. As a result, as is usually the case, some are full need cases, most are partially needy, and many are no need even at these high prices.

Freshmen enrolled in private universities are more likely than freshmen enrolled anywhere else to live in college dormitories, and less likely to live at home. In 1993 about 92 percent lived in the dorms.

Distribution of Private University Freshmen and Their Financial Need by Family Income Levels 1993-94

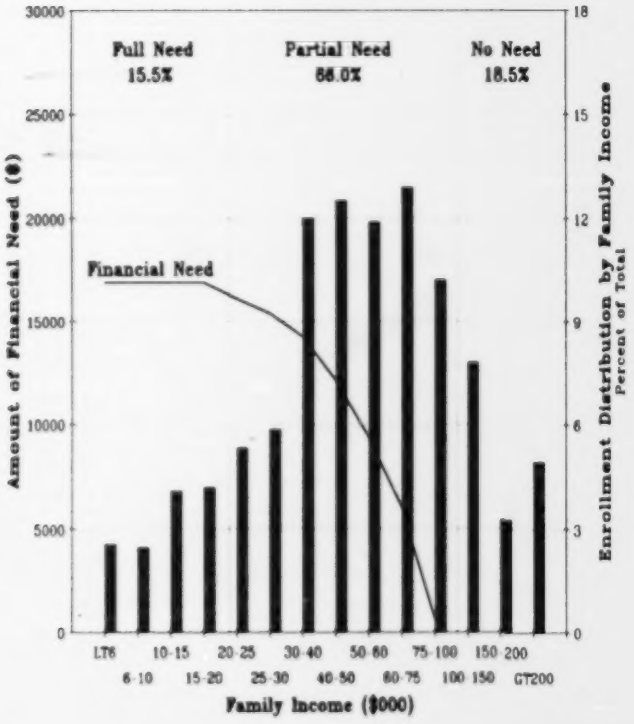


Private universities enroll a smaller share of full need freshmen--from families below about $22,000 per year incomes--than do any other type or control of institution. They also enroll the second largest share of no need freshmen, second only to public universities. In private universities no need freshmen come from families with incomes greater than $115,000 per year where the expected parental contribution exceeds the average college budget of $22,104.

Private 4-Year Colleges

A larger share of freshmen enrolled in private 4-year colleges are financially needy than in any other type or control of college or university. For 1993-94, under the new Federal Methodology, nearly 82 percent are needy. The comparable figures for other 4-year institutional types are: 70 percent for private universities, 72 percent for public 4-year colleges, and 62 percent for public universities.

Distribution of Private 4-Year College Freshmen and Their Financial Need by Family Income Levels 1993-94



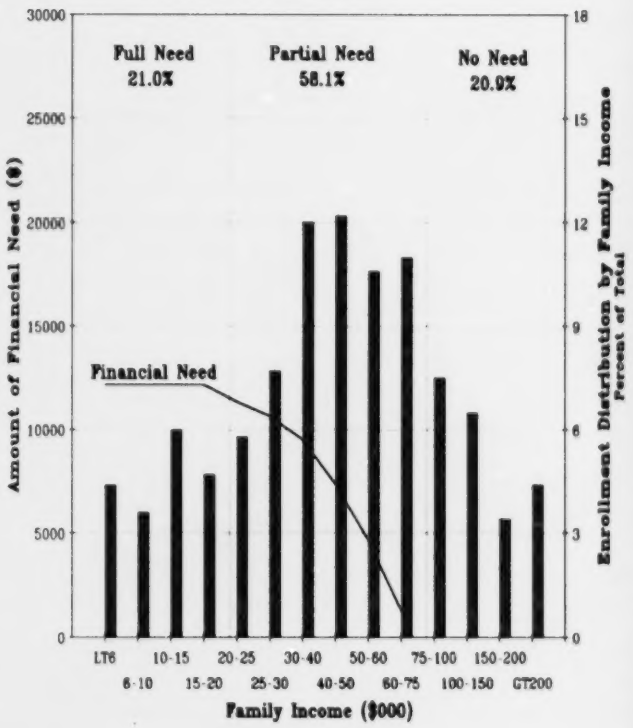
Private 4-year colleges have a larger share of partially needy freshmen than any other type of college or university. This means that more students and their families--about two-thirds of the total--can contribute something toward their own college budgets, but need financial aid to finance the remainder. This also means that need analysis is a more important activity on such campuses than it is likely to be anywhere else.

Between 79 and 90 percent of all freshmen enrolled in private 4-year colleges live in campus dormitories. Thus for our need calculations we have again used the campus resident budget.

Private 2-Year Colleges

In 1993 about two-thirds of private junior college freshmen lived in campus dorms, a quarter lived at home, and the remainder lived in other housing. Those freshmen living in campus dormitories face average college budgets of $12,142 as campus residents. This budget corresponds to a family income of about $78,000. Those who commute have college budgets about $2000 less, and the family income corresponding to this budget is about $70,000 per year.

Distribution of Private 2-Year College Freshmen and Their Financial Need by Family Income Levels 1993-94



About one in five private junior college freshmen is a full need financial aid case, another one in five is not needy, and the remaining three are partially needy.

Findings and Conclusions

The purpose of the preceding analysis has been to illustrate the distribution of financial need among students from different family income levels who are enrolled in different types of colleges and universities. The findings and conclusions from this analysis range from the obvious to the subtle. Almost all have enormous implications for public policy that affects the financing of opportunity for postsecondary education. We list some of them here.

1. **Not all students in the same type of institution are similarly situated.**

Some students come from families that under the new Federal Methodology can be expected to make no contribution toward the education of their own children. They will need financial aid to cover the college budget at the institution they attend. Generally these are students from the bottom quartile of the family income distribution, below about $22,000 per year in family income. They need financial aid to cover the full cost of their higher educations, anywhere from $5400 per year as a commuter at a public community college, to $22,100 per year to live on campus at an average cost private university.

Most students enrolled in higher education come from families able to provide some resources to help finance the higher educations of their children. But these partially needy students need financial aid to complete the financing package for college budgets. The incomes of these families range from $22,000 per year up to incomes where the expected parental contribution from income equals the college budget where the student enrolls. These upper income limits range from about $52,000 for a commuter at a public community college to $115,000 for a campus resident at a private university. Individual circumstances and institutional search for additional family resources determine actual cutoffs in particular individual and institutional circumstances.

Finally, many students are not financially needy at the institutions where they enroll. Their expected parental contributions exceed the college budgets at their institutions. Public universities have the largest share of these students among their enrolled freshmen, and private 4-year colleges have the fewest.

2. **Students who are financially needy at one institution may not be needy at a less expensive institution.**

A student from a family earning $70,000 per year attending a private university may demonstrate need for $12,000 in financial aid. But that same student would not be needy at an average cost public university because the expected parental contribution from need analysis exceeds the college budget.

Presumably, financial aid levels the financial playing field, enabling the student who is needy to choose from among institutions to which he/she is admissible on criteria other than personal and family financial resources. Of course the current system does not work that way when loans are substituted for grants in financial aid packages, financial aid packages fall short of meeting demonstrated need, and institutions practice preferential packaging to attract certain kinds of students.

But there are many other serious problems in the way financial need is met (or unmet) today. Among them are:

- The financial aid system as defined by Congress utterly fails to distinguish needs for children from families earning less than $22,000 per year. Where negative contributions from income and assets are converted to zero, survival needs of poor families are consciously and deliberately ignored in need analysis.
- The substitution of loans for grants in the aid packages of students from very low income backgrounds is the direct result of substantial deterioration in the Pell Grant maximum award for lowest income students since the 1970s. For such students loans are more often barriers rather than vehicles to access postsecondary education.

Finally, as the damage to the quantity and quality of higher education opportunity spreads from the deterioration in higher education funding--particularly public institutions--the issue of financing of higher education becomes more pressing. Inadequate funding of higher education has produced less quantity, less quality, and less affordability.

The burden for these losses has not been shared equally across all population groups. Those from the top quartile of family income appear to be immune from the consequences of inadequate funding. They are extraordinarily successful in navigating an otherwise troubled system of higher education. In the two middle income quartiles students are clearly struggling with access, choice, persistence and attainment. Students from the bottom quartile are drifting off the bottom of the charts that measure educational progress and attainment.

As the preceding analysis shows, many students are not financially needy. Yet they continue to receive large subsidies through institutional funding and pricing policies that allocate public subsidies according to institutional admissions criteria and not financial need. In **OPPORTUNITY**'s most recent analysis of tuition data (July 1992), tuition revenues from students in public institutions covered 27.3 percent of the costs of their education in 1990. Tuition revenues covered 71.5 percent of costs of educating students in private colleges and universities. The balance was provided from other sources, without regard to financial need to many who did not need it.

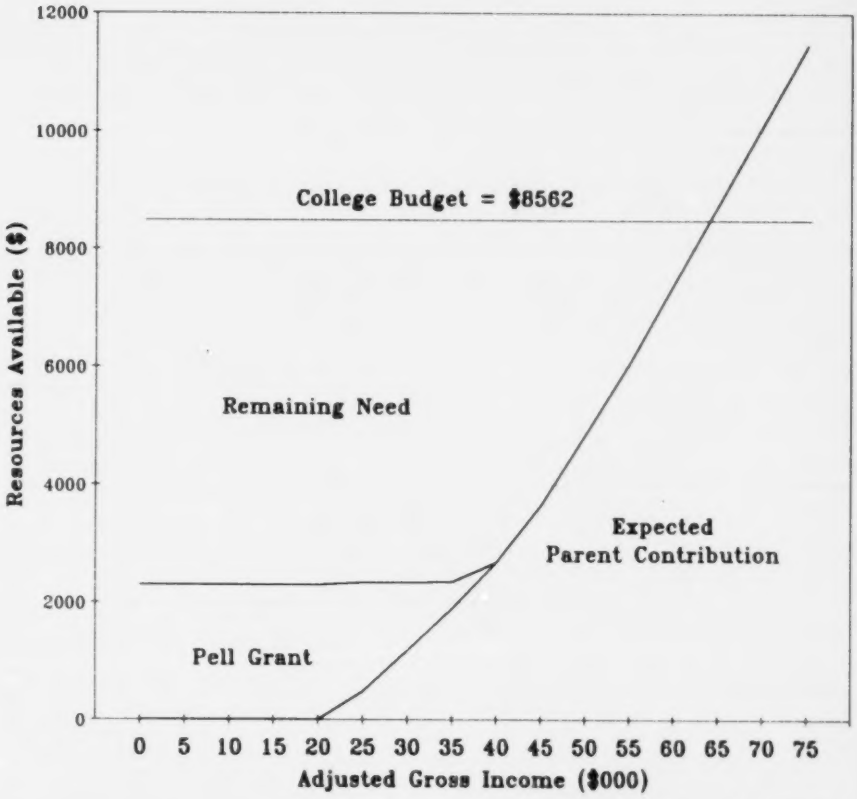
State Financial Aid Grant Allocation Models 1993-94

For 1992-93 states allocated about $2.6 billion in grant assistance to students enrolled in postsecondary education. At least three-quarters was awarded on the basis of need.

There is more than one way to award need-based financial aid resources to students beyond the dominant federal model that has evolved over the last two decades. While most states and institutions now base their financial aid policies, practices, and funding on the federal model, variation exists between states in how need is met with state funds.

In this analysis we illustrate some of the differences in state approaches to funding need-based grants to students. These illustrations were developed from an original effort by Ted Franzeim, Director of Grants Programs for the Vermont Student Assistance Corporation. Here we are less concerned about differences in state eligibility standards, application procedures, and formula details than we are about the distribution of state need-based grant funding to needy students across income levels and in conjunction with other resources available to the student.

Federal Grant Allocation Model
Pell Grant Program
1993-94



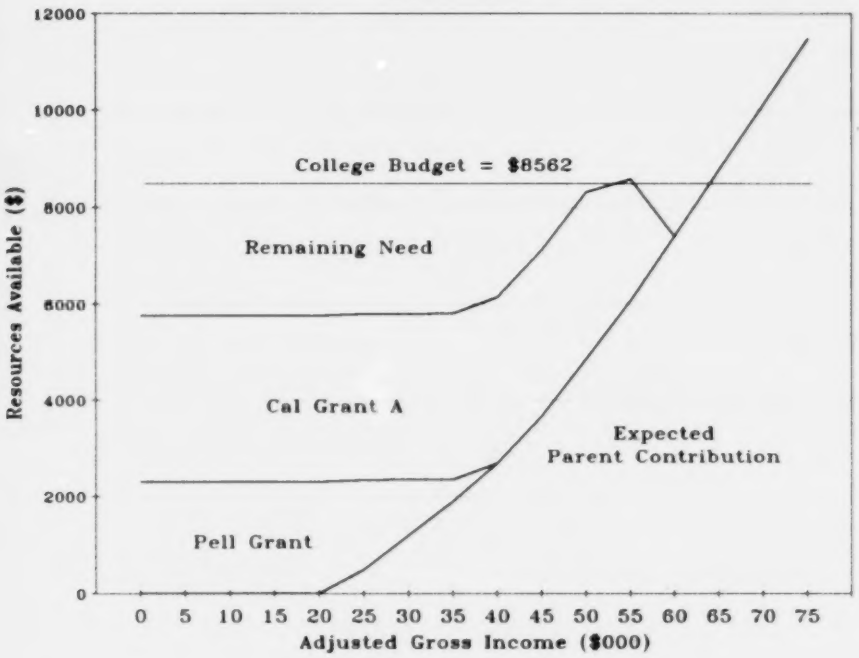
To illustrate state need-based grant allocation models, we have chosen a standard case and asked several states with large general access (not tuition equalization) grant programs to calculate the amount of state need grant a student would qualify for at a public four-year institution at different levels of adjusted gross income (AGI). We have asked states to calculate state grant eligibility for 1993-94 at $5000 increments of AGI for a dependent student attending a public four-year college or university as a campus resident with an annual college budget of $8562 (which is The College Board's national average for 1993-94 for a public four-year institution where the student lives on campus).

The resources available to the student to finance the $8562 college budget include a) the expected family contribution based on the new federal methodology for 1993-94, b) the calculated Pell Grant, and c) the state grant. What is left over is called remaining need, and could be financed with student earnings, educational loans, institutional grants, and/or other sources of financial aid. Or it may remain unmet financial need.

The base model--consisting of parent contribution and the federal Pell Grant--is shown first. Regions of financial need are financed first by the expected parent contribution, and second by the Pell Grant.

To the base model are added grants by states according to each state's intentions and funding resources. For each state we have prepared a chart to illustrate how states provide need-based grants to their dependent undergraduate students. The states that supplied information for these illustrations are: **California, Illinois, Massachusetts, Maryland, Michigan, Minnesota, New York, Vermont, Pennsylvania, and Washington.**

California Grant Allocation Model
Cal Grant A Program
1993-94

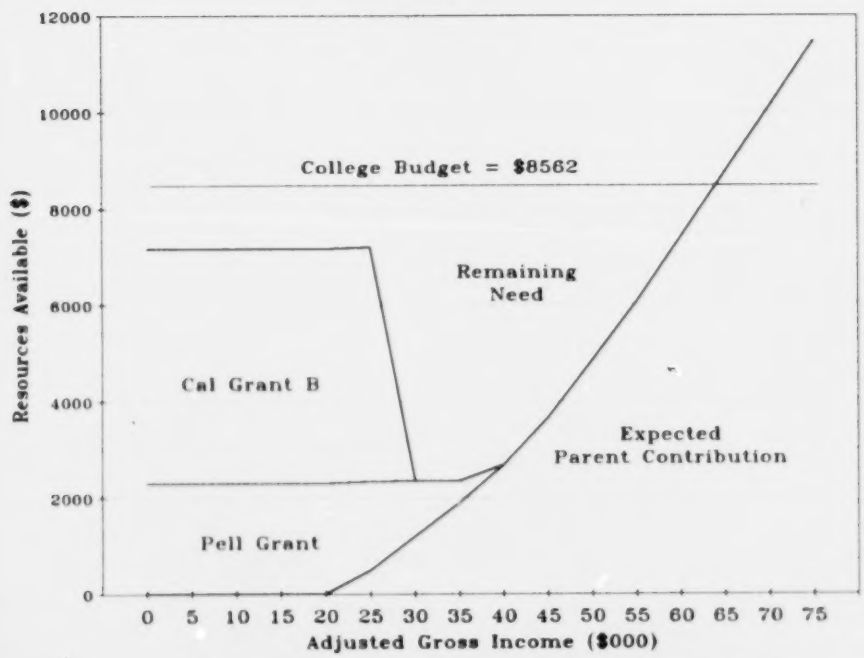


California
Cal Grant A Program

Created:	1956
Recipients	
1993-94	41,330
1992-93	41,330
1991-92	38.769
Dollars	
1993-94	$135,300,000
1992-93	$93,300,000
1991-92	$108,487,000

Undergraduates (fall 1991) 1,808,267
Percent receiving state grant 2.1%
Pell Grant recipients (91-92) 330,899
Percent receiving Pell Grant 18.3%

California Grant Allocation Model
Cal Grant B Program
1993-94



California
Cal Grant B Program

Created:	1969
Recipients	
1993-94	33,803
1992-93	33,803
1991-92	31,799
Dollars	
1993-94	$68,400,000
1992-93	$55,200,000
1991-92	$61,508,000

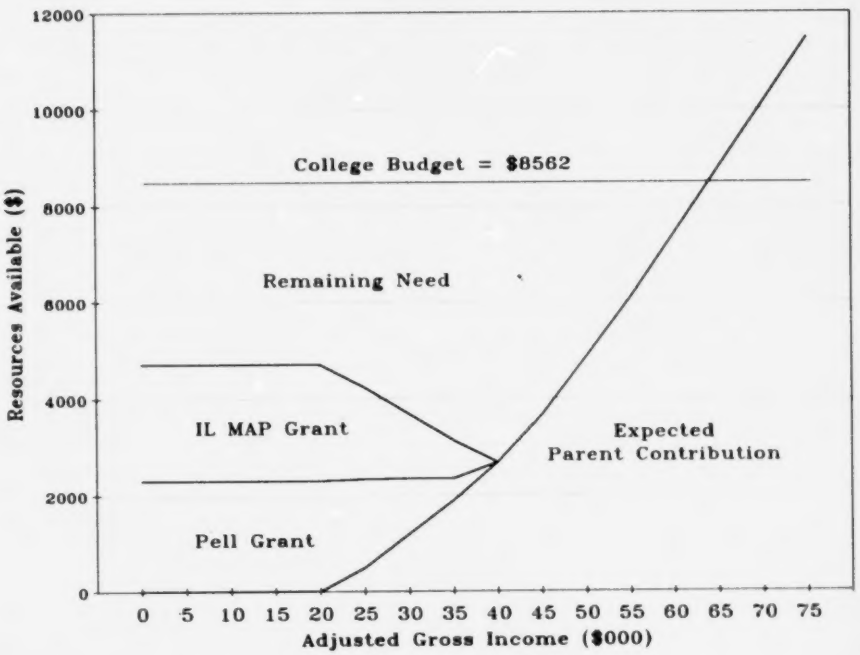
Undergraduates (fall 1991) 1,808,267
Percent receiving state grant 1.8%
Pell Grant recipients (91-92) 330,899
Percent receiving Pell Grant 18.3%

Illinois
Monetary Award Program

Created:	1958
Recipients	
1993-94	119,000
1992-93	110,243
1991-92	114,600
Dollars	
1993-94	$213,200,000
1992-93	$200,900,000
1991-92	$183,307,000

Undergraduates (fall 1991) 641,614
Percent receiving state grant 17.9%
Pell Grant recipients (91-92) 154,472
Percent receiving Pell Grant 24.1%

Illinois Grant Allocation Model
Monetary Award Program
1993-94

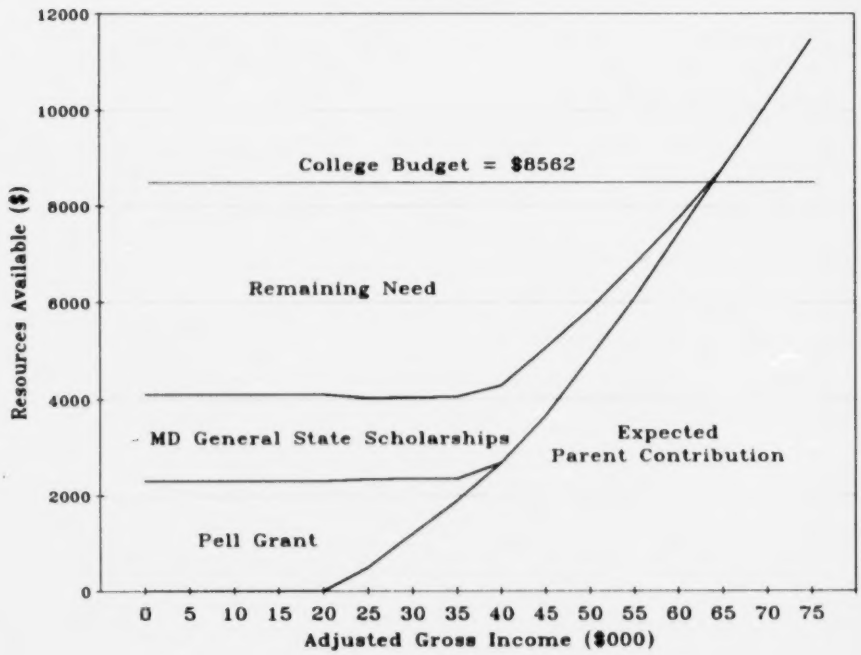


Maryland
General State Scholarships

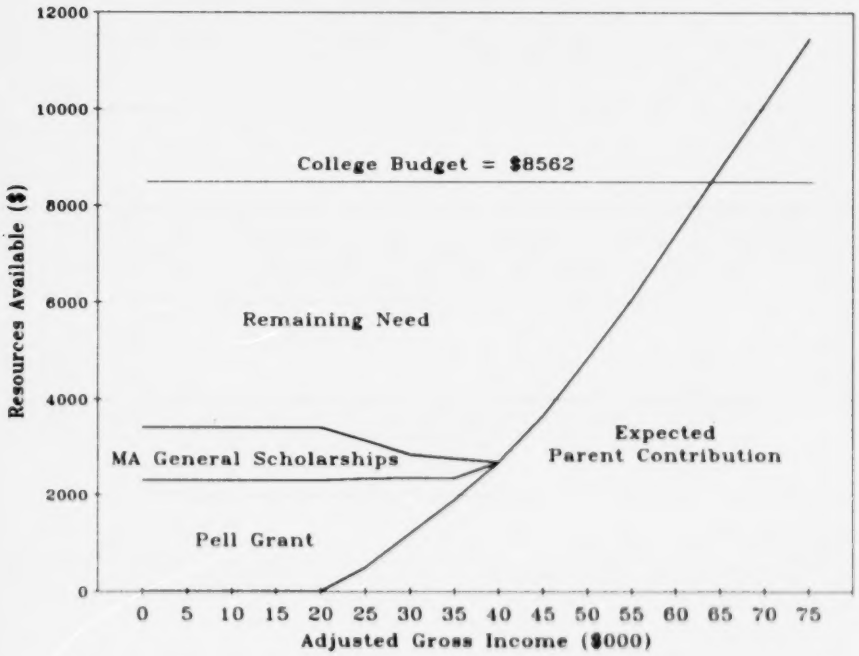
Created:	1961
Recipients	
1993-94	13,483
1992-93	11,104
1991-92	10,785
Dollars	
1993-94	$16,200,000
1992-93	$13,000,000
1991-92	$11,490,000

Undergraduates (fall 1991) 226,154
Percent receiving state grant 4.8%
Pell Grant recipients (91-92) 45,426
Percent receiving Pell Grant 20.1%

Maryland Grant Allocation Model
General State Scholarships
1993-94



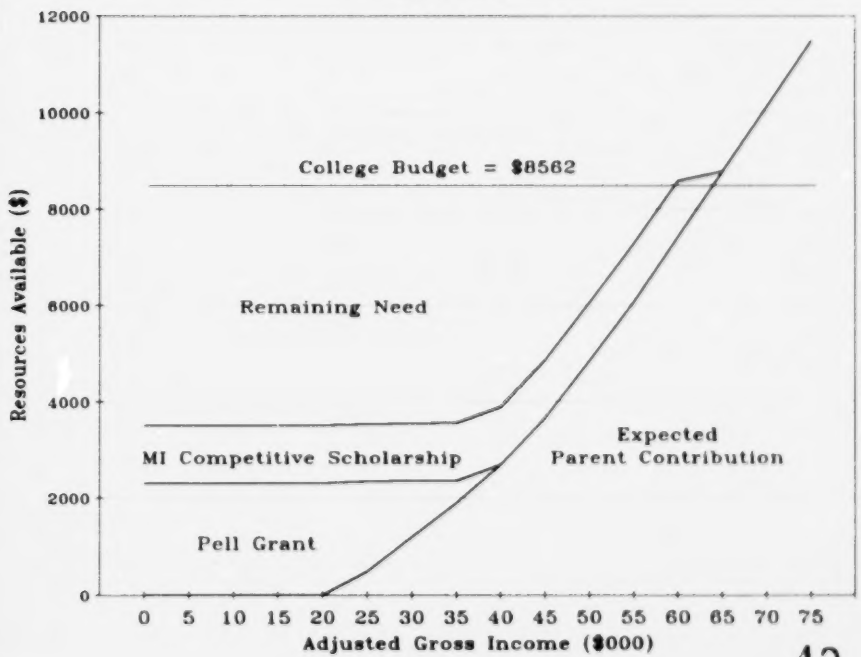
Massachusetts Grant Allocation Model
General Scholarship Program
1993-94



Massachusetts
General Scholarship Program

Created:	1957
Recipients	
1993-94	33,000
1992-93	34,000
1991-92	27,000
Dollars	
1993-94	$34,300,000
1992-93	$35,300,000
1991-92	$23,040,000
Undergraduates (fall 1991)	332,752
Percent receiving state grant	8.1%
Pell Grant recipients (91-92)	66,383
Percent receiving Pell Grant	19.9%

Michigan Grant Allocation Model
Michigan Competitive Scholarship Program
1993-94



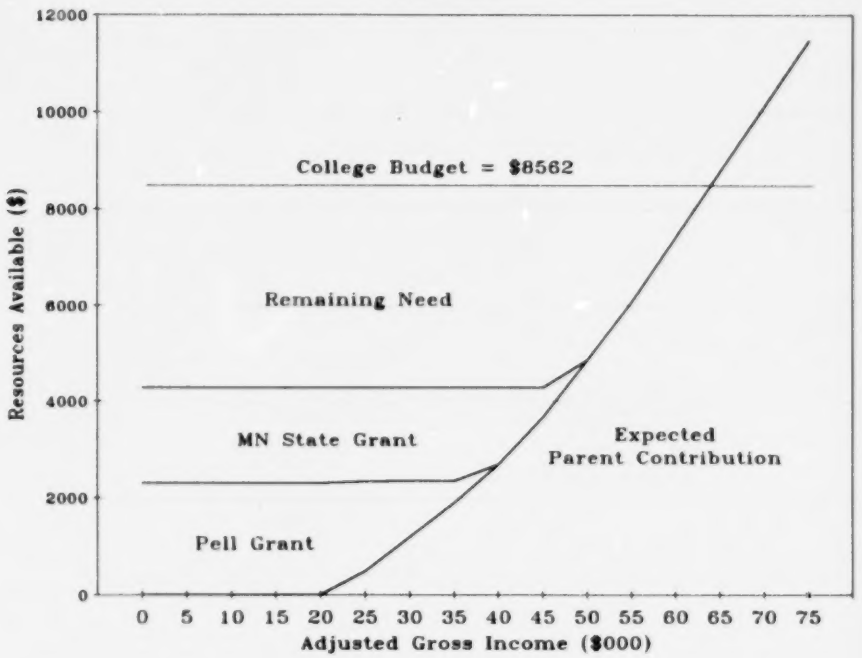
Michigan
Competitive Scholarship Program

Created:	1964
Recipients	
1993-94	25,759
1992-93	25,759
1991-92	25,487
Dollars	
1993-94	$28,700,000
1992-93	$28,700,000
1991-92	$32,822,000
Undergraduates (fall 1991)	497,367
Percent receiving state grant	5.1%
Pell Grant recipients (91-92)	149,313
Percent receiving Pell Grant	30.0%

Minnesota
State Grant Program

Created:	1968
Recipients	
1993-94	63,700
1992-93	61,000
1991-92	63,267
Dollars	
1993-94	$99,000,000
1992-93	$83,000,000
1991-92	$77,412,000
Undergraduates (fall 1991)	223,446
Percent receiving state grant	28.3%
Pell Grant recipients (91-92)	81,297
Percent receiving Pell Grant	36.4%

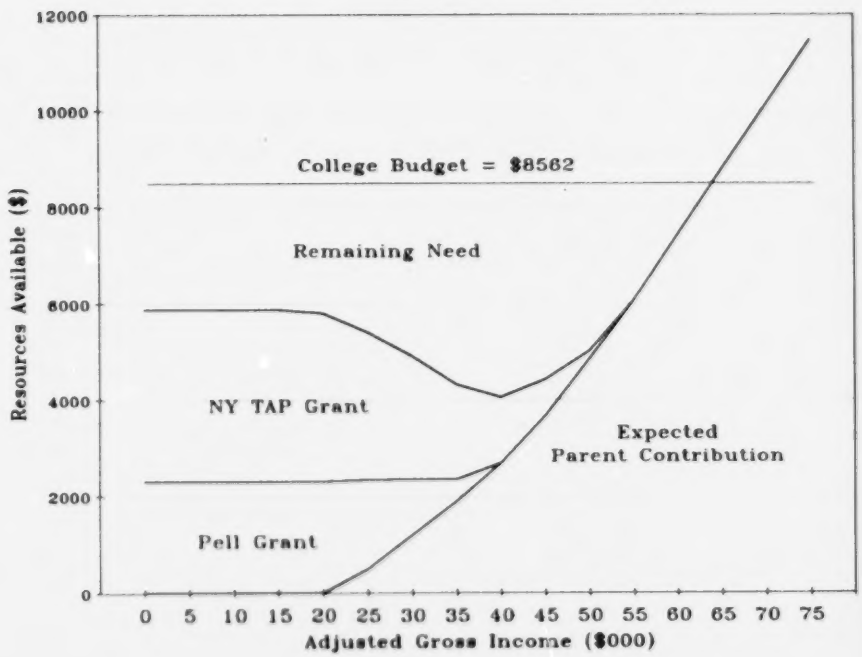
Minnesota Grant Allocation Model
State Grant Program
1993-94



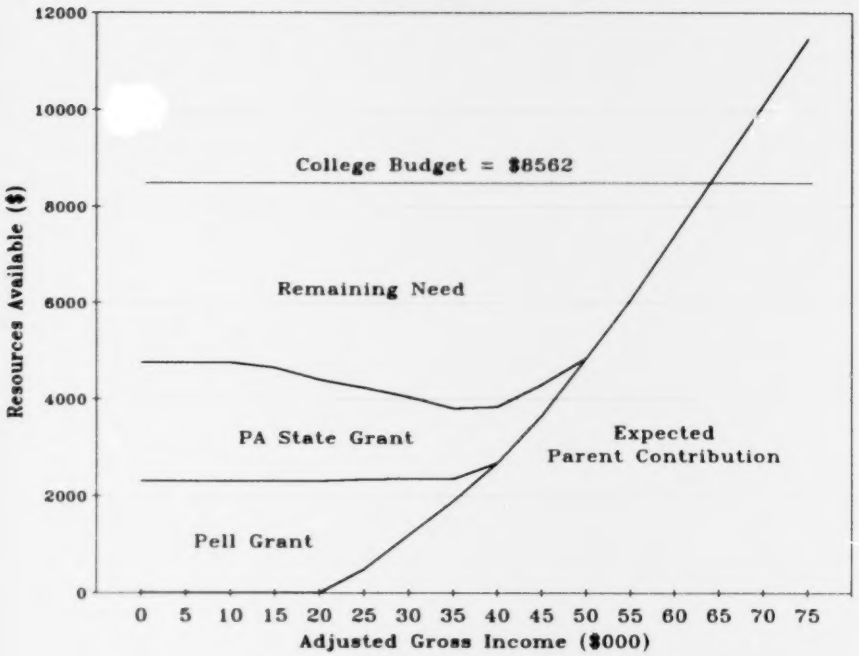
New York
Tuition Assistance Program

Created:	1974
Recipients	
1993-94	312,058
1992-93	304,584
1991-92	274,701
Dollars	
1993-94	$619,200,000
1992-93	$596,000,000
1991-92	$493,207,000
Undergraduates (fall 1991)	860,227
Percent receiving state grant	31.9%
Pell Grant recipients (91-92)	340,732
Percent receiving Pell Grant	39.6%

New York Grant Allocation Model
Tuition Assistance Program Grants
1993-94



Pennsylvania Grant Allocation Model
State Grants Program
1993-94

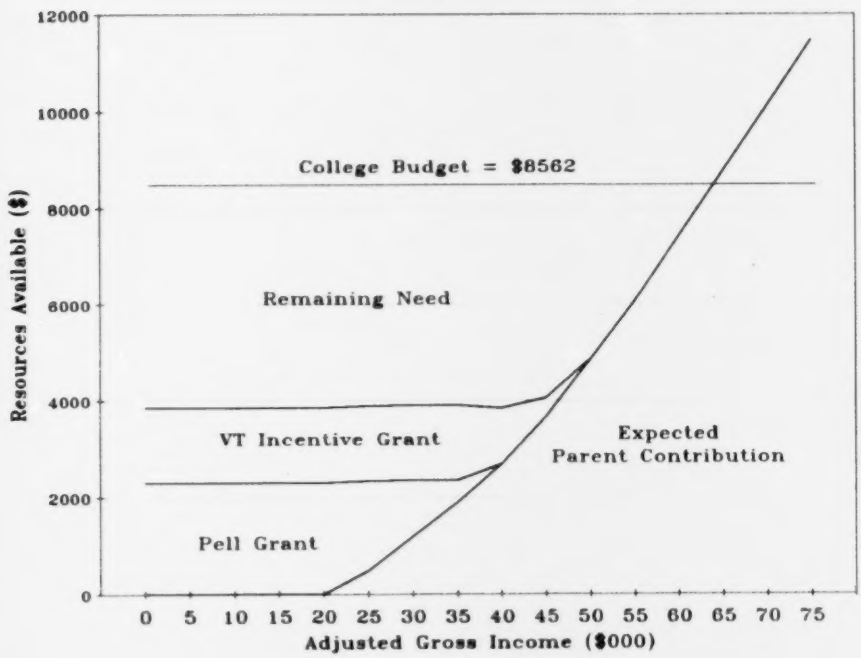


Pennsylvania
State Grants Program

Created:	1966
Recipients	
1993-94	126,888
1992-93	120,846
1991-92	126,113
Dollars	
1993-94	$187,600,000
1992-93	$166,700,000
1991-92	$158,090,000

Undergraduates (fall 1991)	526,549
Percent receiving state grant	24.0%
Pell Grant recipients (91-92)	150,020
Percent receiving Pell Grant	28.5%

Vermont Grant Allocation Model
Incentive Grant Program
1993-94



Vermont
Incentive Grant Program

Created:	1965
Recipients	
1993-94	13,595
1992-93	12,952
1991-92	11,358
Dollars	
1993-94	$11,300,000
1992-93	$11,200,000
1991-92	$11,019,000

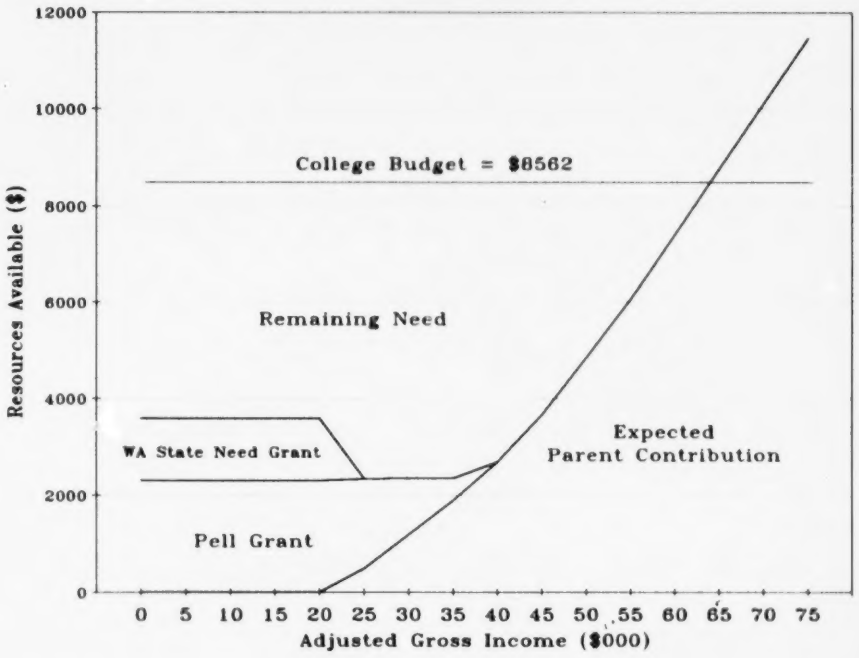
Undergraduates (fall 1991)	32,276
Percent receiving state grant	35.2%
Pell Grant recipients (91-92)	7,326
Percent receiving Pell Grant	22.7%

Washington
State Need Grant Program

Created:	1970
Recipients	
1993-94	38,000
1992-93	19,000
1991-92	22,929
Dollars	
1993-94	$49,000,000
1992-93	$21,000,000
1991-92	$22,603,000

Undergraduates (fall 1991) 250,598
Percent receiving state grant 9.1%
Pell Grant recipients (91-92) 59,339
Percent receiving Pell Grant 23.7%

Washington Grant Allocation Model
State Need Grant Program
1993-94



The eleven state grant programs summarized here reflect the varied efforts of ten states to help students and their families to finance college budgets. Building on the expected parental contribution, the federal government next adds a Pell Grant to assure all families of at least $2300 with which to begin planning for college.

After the family and the Pell Grant, states add need-based grant funding of their own to increase the resources available to the student/family. *In every case reported here, the addition of state grants leaves financially needy students far short of being able to pay the college budget used in these examples.* The remaining need is left to the financial aid officer on the campus where the student seeks to enroll. The financial aid officer may have significant institutional grant/scholarship resources if the institution is private, but is unlikely to have much if the institution is public. At this point loans are often used to fill in much of the remaining financial need.

The state grant program allocation models illustrated here fall largely into two types. The first type concentrates state grant dollars on students from the lowest income families. The three largest state grant programs--**New York**'s Tuition Assistance Program, **Illinois**' Monetary Award Program, and **Pennsylvania**'s State Grants Program--all fall into this type. So too do the programs for **California** (Cal Grant B), **Massachusetts,** and **Washington.** Students from middle income families--typically around $35,000 to $40,000--face greater remaining financial need after state grant awards than do students from lower family income backgrounds.

State grant programs of the second type generally tend to extend financial aid eligibility to all students who are needy. The lower income students usually receive the larger state grants, but higher family income students also receive some state grant funding in recognition of their demonstrated financial need. Examples of this approach are **Michigan**'s Competitive Scholarship Program, **Maryland**'s General State Scholarships, and **California**'s Cal Grant A Program. The two remaining programs--**Minnesota**'s State Grant Program and **Vermont**'s Incentive Grant Program--generally tend to add dollars equally across family income levels, leaving all such aided recipients about equally well off (but still far short of the college budget).

Finally, as the data accompanying each state grant allocation model make clear, some states provide grants to a larger share of their needy students than do other states. Chief among these are **Vermont, Pennsylvania, Illinois, New York and Minnesota.** In contrast, **California**'s coverage of its needy population is very thin.

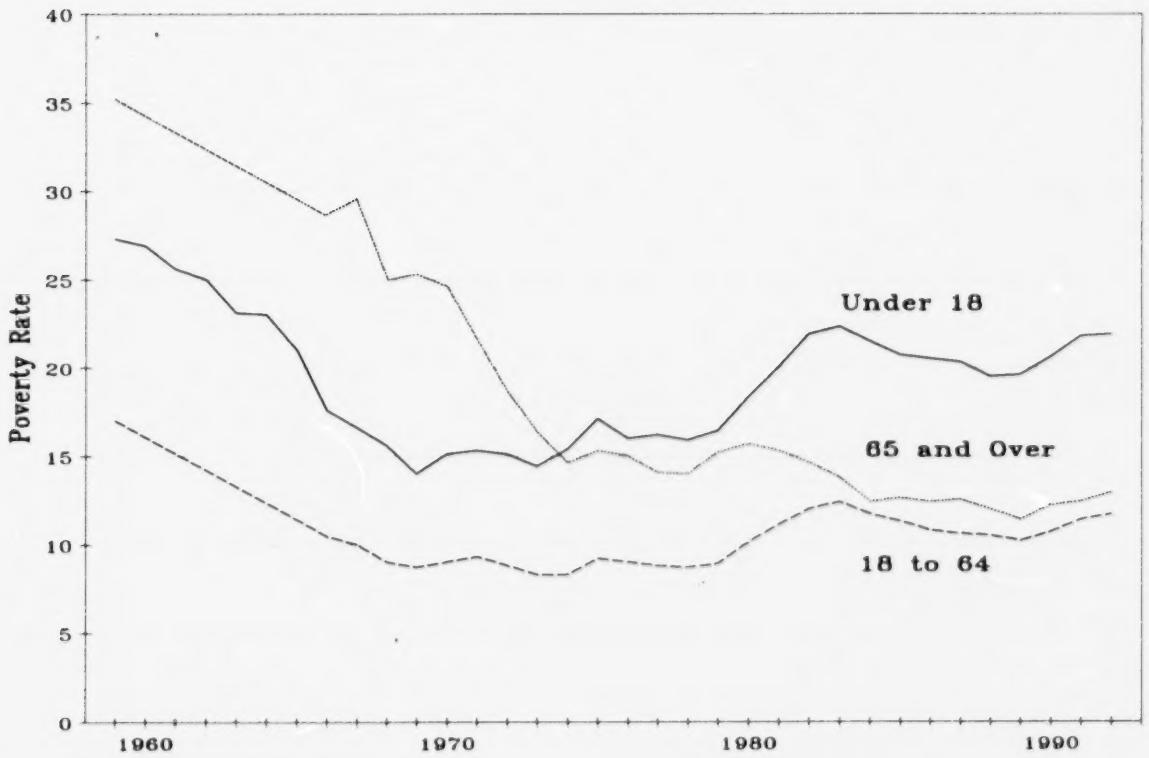
Think About This for a While

Child Poverty Rates in the United States

In 1992 the number of American children living below the poverty line was 14,617,000. This was the largest number of children living in poverty since 1965. Of this total, 5.8 million were Anglo children, 4.9 million were black, 3.1 million were Hispanic, and 0.7 million were other race.

The poverty rate was 21.9 percent among all children, or more than one out of five American children. This was the highest child poverty rate since 1983. The poverty rate was 12.9 percent among Anglo children, 46.6 percent among blacks, 39.9 among Hispanics, and 23.0 percent among children of other race.

Poverty Rates
for Children, Adults, and Elderly
1959 to 1992



In future issues of this newsletter, we will report international comparisons of child poverty rates to help illustrate the magnitude of the national disgrace of growing child poverty in the United States.

1994 NASSGP Financial Aid Research Conference
April 7-9, San Francisco

The eleventh annual financial aid research conference--sponsored by the research network of the National Association of State Scholarship and Grant Programs and the National Council of Higher Education Loan Programs--will be held at the Cathedral Hill Hotel in San Francisco, California, April 7 to 9, 1994.

This is the premier forum for presentation of current research and policy analysis on access to and financing of higher education opportunity. Presenters come from state grant and loan agencies, federal government, postsecondary institutions and private consulting groups.

The preliminary conference agenda includes the following presentations:

- *College Affordability and the Government-to-Families Shift in Financing Higher Education*
- *Changes in Affordability of College in Illinois*
- *Student Financing of Postsecondary Education in Florida*
- *A New Model for Assessing the Demand for State Grant Awards*
- *Relationships Among Parental Income, Family Contributions and Net College Costs*
- *Student Borrowing to Finance Postsecondary Education*
- *Growing Graduate/Professional School Student Borrowing*
- *Soaring Federal Family Education Loan Borrowing in Pennsylvania*
- *Indiana--21st Century Scholars Program*
- *Michigan--Project Awareness*
- *Maryland--Guaranteed Access Grant Program*
- *Characteristics of Pell Grant Eligibles and Recipients*
- *Exogenous Factors Affecting Changes in Pell Grant Applications*
- *Effects of HEA Amendments on Pell Grant Cost Projections*
- *The Effects of Financial Factors on State Grant Recipients' Access*
- *Cornell Tradition Fellowships: A Unique Approach to Grant Programs*
- *Defaulted Borrowers Satisfaction with Illinois Collection Processes*
- *Tracking Student Financial Aid from a Multi-Campus Perspective*
- *State Licensing of Postsecondary Institutions - A Case Study*
- *Undergraduates Who Work While Enrolled*
- *An Alternative to Net Price: Assessing the Effects of Tuition and Financial Aid*
- *The Effects of Student Aid on First-Time Enrollment*
- *The Influence of Prices and Price Subsidies on Persistence by African-Americans*

+ Many others.

For further information and conference registration materials, contact Dr. Jerry Davis, Pennsylvania Higher Education Assistance Agency, at (717) 720-2030.

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Postsecondary Education
OPPORTUNITY

The Mortenson Report on Public Policy Analysis of Opportunity for Postsecondary Education

Number 22 | **Iowa City, Iowa** | **April 1994**

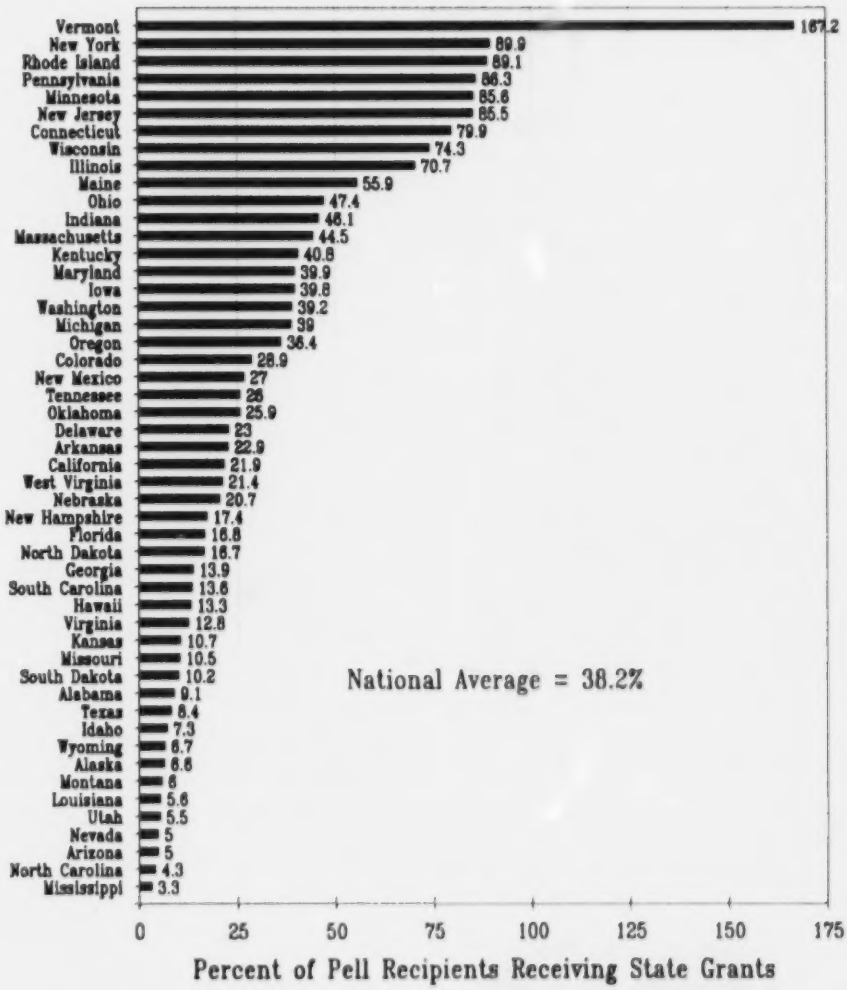
State Need-Based Grant Coverage of Pell Grant Recipients

In a growing number of states, large state need-based grant programs provide substantial financial aid to needy undergraduates. In the March issue of ***OPPORTUNITY****, we illustrated how state student financial aid grants were added to federal Pell Grants to help students finance their college budgets. Here we compare how* ***many*** *needy undergraduate students in each state receive state grants compared to the number of Pell Grant recipients in each state.*

The results of this simple comparison show extraordinary differences across states in the efforts made by states to extend state financial aid grant coverage to its demonstrably most-needy undergraduate student population.

- *At one extreme* ***Vermont*** *had 6793 Pell Grant recipients, but 11,358 Vermont Incentive Grant recipients. Vermont's student financial aid program provided state grants not only to those who were judged needy by federal criteria, but also provided state grants to thousands of other undergraduate students who were needy by Vermont's standards. Vermont provided state grant assistance to 167.2 percent of its most needy undergraduate students and was the only state to provide more grants to its needy undergraduates than did the federal Pell Grant Program.*
- *At the other extreme* ***Mississippi*** *had 57,142 Pell Grant recipients, but only 1,863 Mississippi Student Incentive Grant recipients. Mississippi provided state grant assistance to 3.3 percent of its most needy undergraduate students.*
- *The states with the largest numbers of state residents that received Pell Grants but not state grants were* ***California*** *with 261,000,* ***Texas***

State Grant Program Coverage
of Most Needy Undergraduate Aid Recipients
1991-92



with 235,000, and Florida with 146,000.

In addition, growth in federal Pell Grant Program coverage of financially needy undergraduate students has outstripped state growth over the last decade:

- *In 1982-83, state grants to needy undergraduate students covered 49.5 percent of the students served by Pell Grants.*
- *By 1991-92, the proportion of the Pell Grant population receiving state grants had dropped to 38.1 percent.*

In the following analysis, we compare how many of each state's most needy undergraduate students are covered by state grant programs.

Pell Grant Participation

To define the most financially needy undergraduate students, we use federal Pell Grant Program data from the 1991-92 End-of-Year Report (the most recent available) prepared by NCS of Iowa City and Arlington, Virginia, to identify the number of state resident undergraduates enrolled in higher education (not necessarily within the state's own institutions) who received federal Pell Grants. These are the most financially needy of the needy population because of the Pell program focus on lowest income students. Many other students are financially needy but do not qualify for federal Pell Grants because they have more than $2300--but less than they need to finance their college budgets--from personal or family resources available to finance a part of their need.

In 1991-92 there were 3,546,000 Pell Grant recipients in the 50 states. (Pell Grants are also available to needy undergraduates in Puerto Rico and U.S. trust territories.) The proportion of undergraduate students receiving them by state ranged from 10.5 percent in **Nevada**, to 47.1 percent in **Montana** (see July 1993 OPPORTUNITY).

Pell Grant participation rates by state are highly correlated with state per capita personal income: where state per capita personal income is lowest Pell Grant Program participation rates are highest, and where per capita personal income is highest Pell participation is lowest.

Similarly, Pell Grant program participation tends to follow state fortunes: when state economies sour Pell participation increases, and when state economies prosper Pell participation drops off.

State Grant Participation

Information on state grants to financially needy undergraduate students comes from the annual state student aid agency survey reported by the National Association of State Scholarship and Grant Programs and conducted by Jerry Davis at the Pennsylvania Higher Education Assistance Agency in Harrisburg. This survey gathers detailed data on state student financial aid programs, including enrollment levels, need/other award basis, eligibility criteria, etc.

In 1992-93 undergraduate participation in state need-based grant programs ranged from a high of 56.2 percent in **Vermont**, to a low of 1.5 percent in **North Carolina**. The average for all states was 20.7 percent of full-time undergraduate enrollment.

Vermont has the highest public institution tuition and fee charges in the country, and allocates a larger share of its state higher education budget to need-based grants to students (20.5 percent) than any other state except **New York** (21.5 percent). At the other extreme, nine states allocate less than one percent of their higher education budgets to need-based grants to students. These nine states are: **Wyoming** (0.18%), **Nevada** (0.19%),

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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement
This newsletter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this newsletter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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State Grant Coverage of Needy Undergraduates

State	1991-92 Pell Recips by Radnc	1991-92 State Grant Recips	1991-92 State Coverage of Needy Uncvrd	1991-92 State Coverage of Needy Percent	1985-86 Pell Recips by Radnc	1985-86 State Grant Recips	1985-86 State Coverage of Needy Uncvrd	1985-86 State Coverage of Needy Percent	Change in Coverage Number	Change in Coverage Percent
Alabama	71,684	6,558	-65,126	9.1%	57,691	2,836	-54,855	4.9%	-10,271	4.2%
Alaska	5,368	355	-5,013	6.6%	3,725	161	-3,564	4.3%	-1,449	2.3%
Arizona	63,573	3,149	-60,424	5.0%	34,135	3,406	-30,729	10.0%	-29,695	-5.0%
Arkansas	40,189	9,195	-30,994	22.9%	28,015	11,966	-16,049	42.7%	-14,945	-19.8%
California	334,672	73,226	-261,446	21.9%	223,611	64,362	-159,249	28.8%	-102,197	-6.9%
Colorado	56,004	16,198	-39,806	28.9%	30,211	13,000	-17,211	43.0%	-22,595	-14.1%
Connecticut	21,707	17,350	-4,357	79.9%	17,225	11,470	-5,755	66.6%	1,398	13.3%
Delaware	5,219	1,199	-4,020	23.0%	3,897	1,125	-2,772	28.9%	-1,248	-5.9%
Dist of Col.	6,140	1,053	-5,087	17.1%	7,069	830	-6,239	11.7%	1,152	5.4%
Florida	175,777	29,536	-146,241	16.8%	98,193	15,385	-82,808	15.7%	-63,433	1.1%
Georgia	77,432	10,787	-66,645	13.9%	44,335	14,700	-29,635	33.2%	-37,010	-19.2%
Hawaii	6,067	805	-5,262	13.3%	5,614	1,800	-3,814	32.1%	-1,448	-18.8%
Idaho	18,207	1,332	-16,875	7.3%	11,892	794	-11,098	6.7%	-5,777	0.6%
Illinois	164,901	116,511	-48,390	70.7%	155,642	103,721	-51,921	66.6%	3,531	4.0%
Indiana	75,760	34,900	-40,860	46.1%	57,007	32,645	-24,362	57.3%	-16,498	-11.2%
Iowa	52,431	20,847	-31,584	39.8%	45,201	15,111	-30,090	33.4%	-1,494	6.3%
Kansas	43,481	4,642	-38,839	10.7%	29,891	5,461	-24,430	18.3%	-14,409	-7.6%
Kentucky	62,099	25,317	-36,782	40.8%	43,627	17,190	-26,437	39.4%	-10,345	1.4%
Louisiana	84,140	4,671	-79,469	5.6%	56,371	2,860	-53,511	5.1%	-25,958	0.5%
Maine	14,714	8,218	-6,496	55.9%	12,374	2,072	-10,302	16.7%	3,806	39.1%
Maryland	47,974	19,140	-28,834	39.9%	37,720	11,975	-25,745	31.7%	-3,089	8.1%
Massachusetts	60,904	27,100	-33,804	44.5%	51,384	43,686	-7,698	85.0%	-26,106	-40.5%
Michigan	155,134	60,494	-94,640	39.0%	114,849	38,527	-76,322	33.5%	-18,318	5.4%
Minnesota	80,284	68,719	-11,565	85.6%	63,175	55,858	-7,317	88.4%	-4,248	-2.8%
Mississippi	57,142	1,863	-55,279	3.3%	40,340	1,577	-38,763	3.9%	-16,516	-0.6%
Missouri	78,939	8,277	-70,662	10.5%	59,585	8,300	-51,285	13.9%	-19,377	-3.4%
Montana	18,322	1,102	-17,220	6.0%	14,230	970	-13,260	6.8%	-3,960	-0.8%
Nebraska	30,952	6,404	-24,548	20.7%	25,231	1,950	-23,281	7.7%	-1,267	13.0%
Nevada	11,758	584	-11,174	5.0%	6,579	828	-5,751	12.6%	-5,423	-7.6%
New Hampshire	9,178	1,600	-7,578	17.4%	5,786	1,852	-3,934	32.0%	-3,644	-14.6%
New Jersey	73,096	62,476	-10,620	85.5%	65,444	64,211	-1,233	98.1%	-9,387	-12.6%
New Mexico	32,562	8,805	-23,757	27.0%	18,339	1,700	-16,639	9.3%	-7,118	17.8%
New York	329,437	296,200	-33,237	89.9%	321,022	323,470	2,448	100.8%	-35,685	-10.9%
North Carolina	70,266	3,038	-67,228	4.3%	49,764	6,216	-43,548	12.5%	-23,680	-8.2%
North Dakota	15,759	2,631	-13,128	16.7%	12,887	1,859	-11,028	14.4%	-2,100	2.3%
Ohio	165,852	78,560	-87,292	47.4%	124,446	72,000	-52,446	57.9%	-34,846	-10.5%
Oklahoma	65,003	16,817	-48,186	25.9%	36,909	15,485	-21,424	42.0%	-26,762	-16.1%
Oregon	43,913	15,977	-27,936	36.4%	35,213	15,506	-19,707	44.0%	-8,229	-7.7%
Pennsylvania	146,173	126,116	-20,057	86.3%	125,218	117,289	-7,929	93.7%	-12,128	-7.4%
Rhode Island	12,103	10,786	-1,317	89.1%	9,692	10,316	624	106.4%	-1,941	-17.3%
South Carolina	49,205	6,694	-42,511	13.6%	33,694	7,635	-26,059	22.7%	-16,452	-9.1%
South Dakota	15,554	1,584	-13,970	10.2%	15,249	2,170	-13,079	14.2%	-891	-4.0%
Tennessee	70,151	18,228	-51,923	26.0%	48,517	19,084	-29,433	39.3%	-22,490	-13.4%
Texas	256,052	21,445	-234,607	8.4%	129,838	19,374	-110,464	14.9%	-124,143	-6.5%
Utah	41,222	2,276	-38,946	5.5%	19,529	2,500	-17,029	12.8%	-21,917	-7.3%
Vermont	6,793	11,358	4,565	167.2%	5,639	9,812	4,173	174.0%	392	-6.8%
Virginia	64,914	8,285	-56,629	12.8%	42,120	5,980	-36,140	14.2%	-20,489	-1.4%
Washington	59,521	23,347	-36,174	39.2%	45,970	12,231	-33,739	26.6%	-2,435	12.6%
West Virginia	25,444	5,450	-19,994	21.4%	18,292	7,073	-11,219	38.7%	-8,775	-17.2%
Wisconsin	70,090	52,074	-18,016	74.3%	58,529	45,673	-12,856	78.0%	-5,160	-3.7%
Wyoming	8,797	592	-8,205	6.7%	4,809	279	-4,530	5.8%	-3,675	0.9%
TOTAL	3,552,059	1,353,871	-2,198,188	38.1%	2,605,725	1,246,281	-1,359,444	47.8%	-838,744	-9.7%

Hawaii (0.21%), **Mississippi** (0.31%), **Montana** (0.33%), **Arizona** (0.40%), **Idaho** (0.53%), **South Dakota** (0.65%), and **Nebraska** (0.73%).

Comparing Federal and State Grant Program Coverage

Using the federal Pell Grant program population of most-needy undergraduate enrollments, we now compare the number of each state's residents that receive Pell Grants to the number that receive state need-based grants. In 1991-92 there were

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3,546,000 Pell Grant recipients in the 50 states, and 1,353,000 state grant recipients. Overall 38.1 percent of the Pell Grant population received state grants.

Only one state--**Vermont**--provided more state need-based grants to its undergraduates than did the federal government provide as Pell Grants. In 1991-92 Vermont provided 11,358 need-based grants to undergraduates through its Incentive Grant Program, compared to 6793 federal Pell Grants.

Nine more states provided state need-based grants to between 56 and 90 percent of their Pell Grant recipients. These states were: **New York, Rhode Island, Pennsylvania, Minnesota, New Jersey, Connecticut, Wisconsin, Illinois,** and **Maine**.

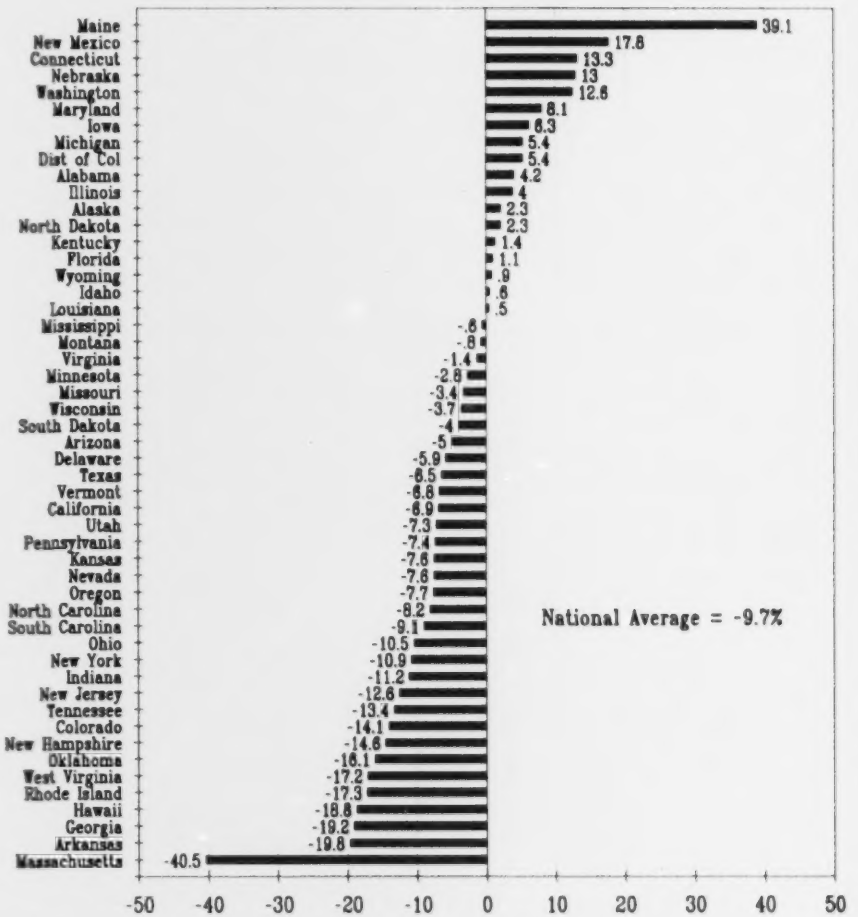
At the other extreme, twelve states provided need based grants to less than 10 percent of the federally-defined most needy undergraduate population. These states were: **Mississippi, North Carolina, Arizona, Nevada, Utah, Louisiana, Montana, Alaska, Wyoming, Idaho, Texas,** and **Alabama**.

Changes in State Coverage of Pell Grant Recipients

Between 1982-83 and 1991-92 the proportion of Pell Grant recipients covered by state need-based grants declined, from 49.5 percent to 35.4 percent.

The number of recipients increased at both the federal and state levels, but much more rapidly at the federal level. This is due to a variety of reasons including: liberalization of the Pell Grant program eligibility formula, curbs on state grant program eligibility such as denying state grant eligibility to students in private for-profit institutions, and denial of state grant eligibility at out-of-state institutions.

Change in State Grant Coverage of Pell Grant Recipients Between 1985-86 and 1991-92

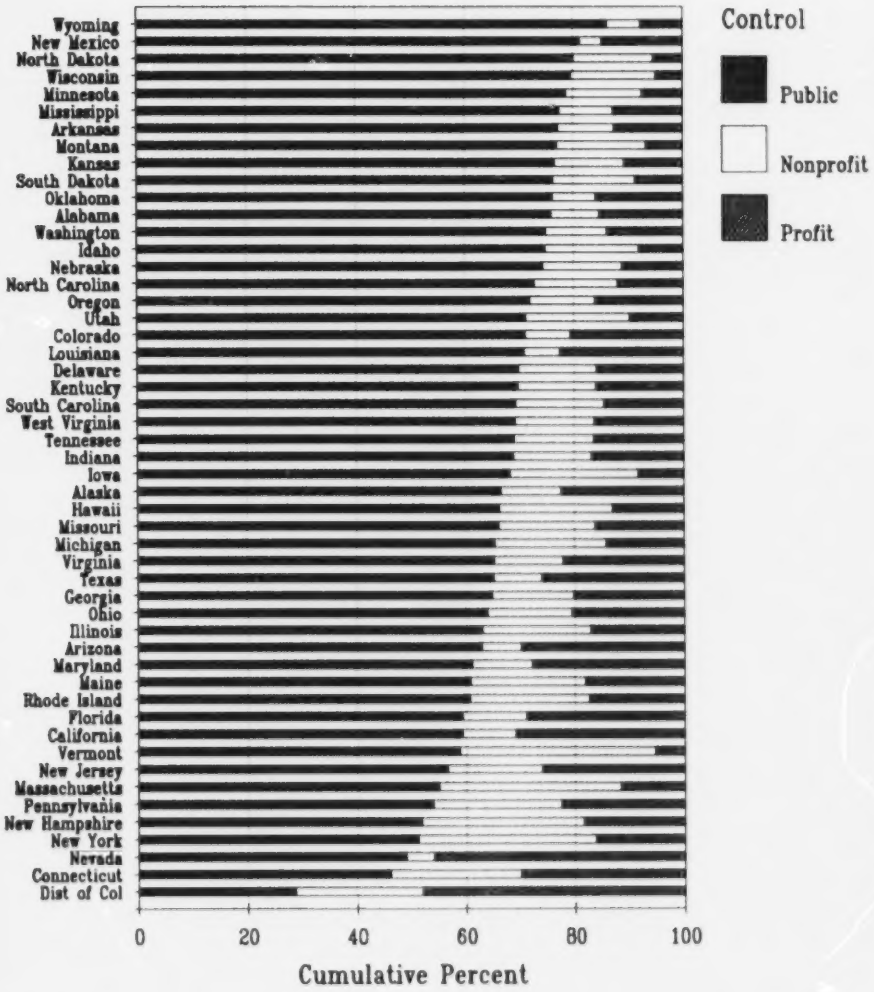


However, state grant coverage of the Pell Grant population did not decrease in all states. Between 1985-86 and 1991-92, state grant coverage of the Pell recipient population *increased* in 18 states plus the District of Columbia, and *decreased* in 31 other states. The states where state grant coverage increased were led by **Maine, New Mexico, Connecticut, Nebraska** and **Washington**. The state with the largest decrease in Pell Grant coverage was **Massachusetts**, site of the Massachusetts Massacre of 1991 (May 1992 **OPPORTUNITY**).

Institutional Control

One of the frequent rationing devices used by states to limit eligibility for state need-based grants is to exclude proprietary institutions from state program participation. The federal government includes these institutions, and these for-profit businesses often

Distribution of Pell Grant Recipients by State and Institutional Control 1991-92



serve students from very low family income backgrounds.

In 1991-92 the distribution of Pell Grant recipients was 62.7 percent enrolled in public institutions, 17.8 percent enrolled in private nonprofit institutions, and 19.5 percent enrolled in private for-profit schools. The range in this distribution by institutional control ranged from 29 percent in the **District of Columbia** to 86 percent in **Wyoming** among public institutions. The proportion enrolled in private nonprofit institutions ranged from 4 percent in **New Mexico** to 36 percent in **Vermont**. The proportion enrolled in private for-profit schools ranged from 5 percent in **Wisconsin** to 48 percent in the **District of Columbia**.

Among the major state need-based grant programs, **New York, Pennsylvania, New Jersey, California, Minnesota, Ohio** and **Massachusetts** allow students enrolled in private vo-tech schools to receive state grants. However, **Illinois, Indiana, Michigan, Iowa, Wisconsin, South Carolina** and **Maryland** do not.

Interstate Portability

The federal Pell Grant Program ignores state boundaries: a resident of one state may take his or her Pell eligibility to an institution in another state, and in 1991-92 well in excess of 100,000 did so. While we lack the data to examine this phenomenon directly, data published in the **Pell Grant End-of-Year Report** permits a state-by-state *net migration* calculation of Pell Grant recipients for 1991-92. That chart appears on the following page.

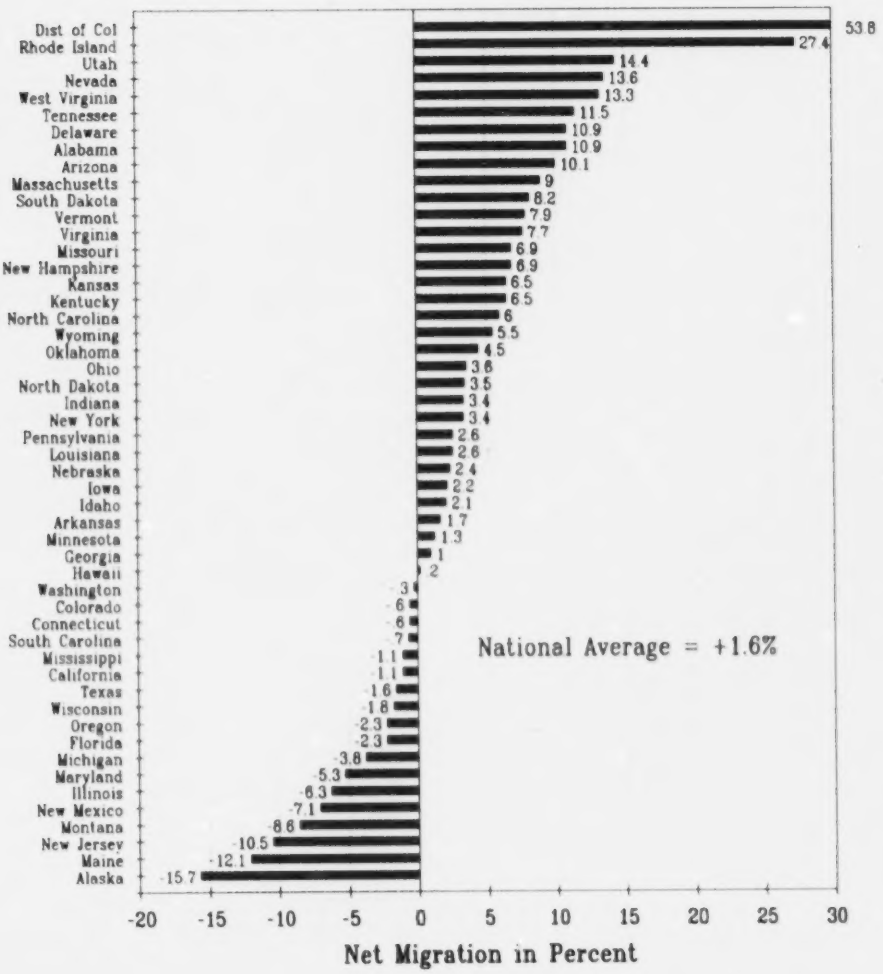
The largest net importers of Pell Grant recipient undergraduates were the **District of Columbia, Rhode Island, Utah, Nevada, West Virginia, Tennessee, Delaware, Alabama,** and **Arizona**--each of which had at least 10 percent more Pell Grant recipients enrolled within state boundaries than there were state residents with Pell Grants.

The largest net exporters of Pell Grant recipients were **Alaska, Maine,** and **New Jersey**--each of which 10 percent or more state residents enrolled outside of the state than were enrolled in institutions within the state.

Interstate portability of state grant eligibility is much rarer, limited largely to agreements between states in New England and some middle Atlantic states. Typically these arrangements involve reciprocity: grants from one state are portable to other states that allow their residents to take their state grants to the first state.

States that allow state residents to take

Net Migration of Pell Grant Recipients by State 1991-92



their state grants to other states include: **Alaska, Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, Ohio, Rhode Island, Vermont and West Virginia.**

These arrangements make especially good sense in small states that are unable to offer adequate depth and breadth of educational opportunity to their own state residents. Also, since state grants are usually far less than state subsidies to students in public institutions, they can save states substantial sums of money.

Summary and Conclusions

States provided need-based grant assistance to 1,422,400 financially needy undergraduate students in 1991-92, and spent $1,943,837,000 to do so. The average state grant was $1367. By comparison, the federal government provided Pell Grants to 3,786,200 financially needy undergraduate students at a total cost of $5,792,700,000. The average Pell Grant was $1530.

Very roughly, states provided grants to about 35 percent of the Pell recipient population in 1991-92, down from about 50 percent in 1982-83. Although state grant coverage decreased overall, in states that aggressively expanded their state grant programs during the last decade the proportion of Pell recipients receiving state grants increased. In other states serious budget problems and sometimes neglect resulted in retrenchment in state grant program coverage of the Pell recipient population.

Clearly, most states have a very long way to go to extend state need-based grant coverage to their most needy undergraduate students as defined by the federal Pell Grant program. State rationing devices include institutional eligibility criteria (such as limiting eligible institutions to certain types of institutions, e.g. public, private non-profit, or within state), assessments of financial need that differ from the federalized national formula, and limitation of costs recognized in the college attendance budget. Through such rationing devices financial needs of state residents are more narrowly defined than the broader eligibility criteria employed by the federal government.

Finally, state and local governments provided about $54.7 billion for higher education in 1992, compared to $10.3 billion by the federal government, according to the National Income and Product Accounts. Although the federal government's higher education allocations are more targeted on financially needy populations than are the funds provided by state and local governments, in fact much of the state and local contribution goes to students who are financially needy. That also means that some portion of the state and local contribution goes to students who are not financially needy. That, indeed, is the core problem in financing postsecondary education opportunity in the United States today.

State Tax Fund Appropriations for Higher Education Continued 15 Year Decline in 1993-94

State tax fund appropriations for operating expenses of higher education as a proportion of personal income reached a peak in 1978-79. They have been declining ever since.

The steady withdrawal of state government funding of higher education that began in 1979-80 continued with 1993-94 state appropriations, according to data collected by the Center for Higher Education at Illinois State University. The 1993-94 share of personal income was just 71 percent of the peak reached in 1978-79.

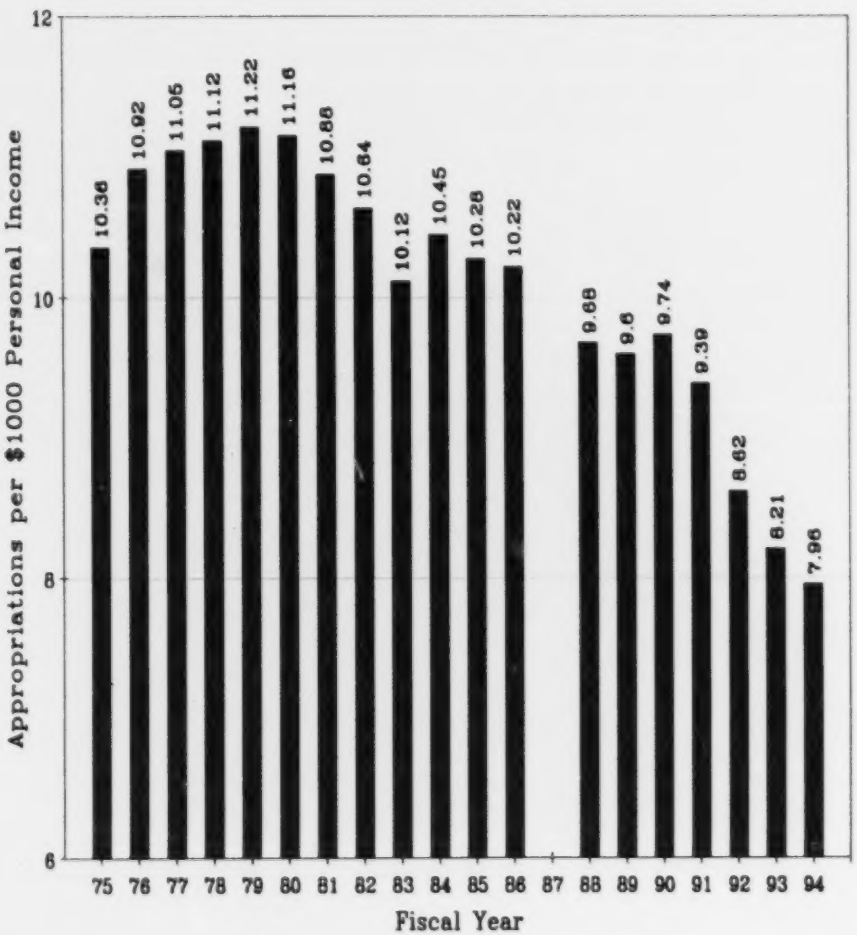
Moreover, this fifteen year decline has occurred in every one of the 50 states--an event almost without parallel in our analyses of state financing of higher education.

Here our measure of state appropriations support for higher education controls for the resources of the state to finance higher education, namely personal income. State appropriations are reported per $1000 of personal income. These data were calculated and reported by *The Chronicle of Higher Education* for the fiscal years between 1975 and 1986, and were calculated by the Center for Higher Education at Illinois State University and have been reported by the State Higher Education Executive Officers between fiscal years 1988 and 1994.

The decline in state appropriations support for higher education causes numerous serious obstacles to postsecondary education opportunity, particularly for vulnerable populations not well served by higher education. These obstacles include loss of capacity (enrollment limits), loss of quality (loss of programs, underfunded programs), and loss of affordability (price increases not covered by increases in student aid).

Here we analyze state-by-state tax fund appropriations for higher education for each of the last twenty years, 1974-75 through 1993-94. Our control for each state's tax base is personal income, and appropriations

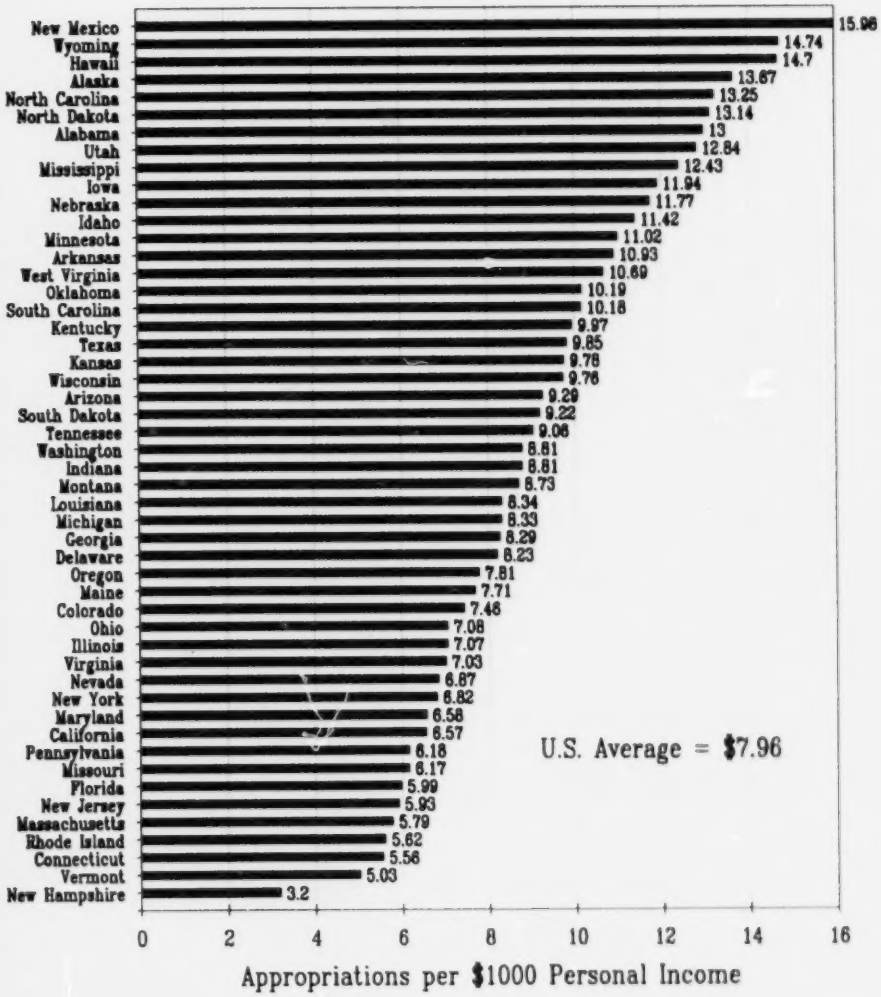
Appropriations of State Tax Funds for Operating Expenses of Higher Education per $1000 of Personal Income 1974-75 to 1993-94



Appropriations of State Tax Funds for Operating Expenses of Higher Education per $1000 of Personal Income

State	1974-75	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	Change: 1978-79 to 1993-94 Dollars	Change: 1978-79 to 1993-94 Percent
Alabama	$11.54	$16.03	$16.62	$16.04	$16.02	$16.29	$14.31	$12.64	$11.67	$13.73	$15.69	$12.42	$15.65	$14.73	$15.45	$13.02	$12.98	$13.00	$-5.04	-27.9%
Alaska	18.42	19.50	16.09	16.64	16.42	17.98	23.84	25.91	20.85	20.26	26.98	16.55	17.21	17.59	15.94	15.05	14.49	13.67	-2.97	-17.8%
Arizona	15.80	15.52	16.38	14.60	13.41	13.59	12.81	11.83	11.09	11.94	11.96	11.00	11.23	10.91	10.92	10.31	9.74	9.29	-5.31	-36.4%
Arkansas	10.24	11.76	12.12	11.81	13.00	12.41	11.05	10.73	9.87	11.93	12.99	10.63	10.42	10.29	10.28	11.49	11.87	10.93	-0.88	-7.5%
California	12.01	13.10	12.75	13.47	14.14	13.85	12.82	11.35	8.83	11.42	11.34	10.41	10.17	10.81	10.53	9.14	7.64	6.57	-6.90	-51.2%
Colorado	13.64	13.60	13.28	12.66	11.41	10.44	10.53	10.53	9.90	9.57	9.23	8.86	9.25	9.29	8.88	8.40	8.10	7.46	-5.20	-41.1%
Connecticut	7.40	6.76	7.17	8.26	7.68	7.93	7.12	6.29	6.15	6.48	6.32	6.55	6.84	6.22	6.08	6.01	5.68	5.56	-2.70	-32.7%
Delaware	11.18	11.50	10.80	10.91	10.71	11.76	11.69	11.58	10.64	11.07	10.90	10.67	10.00	9.91	9.84	9.03	8.65	8.23	-2.68	-24.6%
Florida	10.91	9.24	9.66	9.48	9.37	9.32	9.05	8.75	8.06	8.29	8.07	7.99	7.87	7.66	7.30	6.15	5.61	5.99	-3.49	-36.8%
Georgia	11.29	10.60	10.98	11.42	11.30	11.06	11.28	10.73	10.18	10.28	9.86	9.25	9.13	9.14	9.30	7.88	8.24	8.29	-3.13	-27.4%
Hawaii	12.74	17.25	17.69	16.80	15.95	16.20	15.83	17.10	15.17	15.14	15.40	16.10	16.15	15.90	14.49	14.17	14.21	14.70	-2.10	-12.5%
Idaho	14.78	16.57	16.45	16.34	13.58	13.74	12.47	12.13	10.94	11.65	12.06	12.37	12.24	12.46	13.24	12.70	12.09	11.42	-4.92	-30.1%
Illinois	9.45	9.00	8.97	9.34	8.76	8.77	8.28	7.76	7.73	8.29	8.27	7.40	7.35	8.21	7.85	7.42	7.18	7.07	-2.27	-24.3%
Indiana	9.32	10.73	10.68	10.42	9.93	9.93	9.81	9.13	8.89	9.51	9.43	9.75	9.82	9.82	9.93	9.59	9.28	8.81	-1.61	-15.5%
Iowa	9.65	12.77	13.63	13.77	13.10	13.05	12.51	12.55	11.88	12.62	11.25	11.60	11.87	12.09	13.12	11.77	12.45	11.94	-1.83	-13.3%
Kansas	10.47	12.73	12.64	13.39	12.91	11.88	11.78	12.11	10.88	11.51	10.89	10.10	10.21	11.31	11.07	9.91	10.19	9.78	-3.61	-27.0%
Kentucky	12.58	12.12	11.79	13.27	12.96	11.80	12.72	11.79	11.97	11.69	11.29	11.92	11.53	11.51	11.86	11.59	10.72	9.97	-3.30	-24.9%
Louisiana	12.54	11.56	11.68	12.03	12.39	13.07	12.76	12.24	10.26	12.19	11.87	10.21	9.44	9.65	10.35	9.38	9.70	8.34	-3.69	-30.7%
Maine	10.89	8.33	7.89	7.87	8.34	8.11	7.48	7.44	6.29	7.23	8.07	9.37	9.81	9.71	9.86	8.83	8.03	7.71	-0.16	-2.0%
Maryland	8.13	9.68	9.33	9.34	9.34	9.50	8.73	8.84	8.14	8.64	8.47	8.17	8.46	9.14	8.97	7.69	7.31	6.58	-2.76	-29.6%
Massachusetts	6.54	6.75	6.58	6.51	6.88	6.29	6.26	6.42	5.38	8.39	8.30	8.66	7.75	6.66	5.32	4.30	4.63	5.79	-0.72	-11.1%
Michigan	10.44	10.51	10.74	10.55	10.37	9.43	9.19	8.71	8.54	9.67	10.02	9.72	9.45	9.21	9.19	9.02	8.81	8.33	-2.22	-21.0%
Minnesota	9.71	14.20	15.54	13.88	14.53	13.28	12.96	11.82	13.07	12.70	13.11	12.82	12.74	13.19	13.38	12.11	11.39	11.02	-2.86	-20.6%
Mississippi	16.12	16.21	17.50	18.22	17.59	17.41	18.08	15.81	16.80	15.58	17.49	14.20	15.76	14.87	14.43	12.49	12.66	12.43	-5.79	-31.8%
Missouri	8.59	9.02	9.13	8.92	8.81	8.80	7.97	7.51	6.98	7.37	7.46	7.20	7.35	7.60	7.58	6.36	6.39	6.17	-2.75	-30.8%
Montana	11.33	11.62	12.20	11.81	11.42	11.01	12.43	12.77	12.73	13.22	12.45	10.87	10.54	10.57	10.28	10.81	9.93	8.73	-3.08	-26.1%
Nebraska	10.51	13.00	13.88	13.40	12.72	12.16	12.70	11.60	11.35	11.91	10.77	10.35	11.10	12.27	13.23	12.26	12.71	11.77	-1.63	-12.2%
Nevada	9.44	10.76	10.42	9.91	9.13	8.41	7.66	7.35	7.02	6.99	7.78	7.58	7.36	7.94	7.63	8.23	8.17	6.87	-3.04	-30.7%
New Hampshire	4.95	5.26	4.63	4.97	4.65	4.44	4.67	3.77	2.93	3.70	3.90	4.09	3.91	3.53	3.25	3.25	3.08	3.20	-1.77	-35.6%
New Jersey	6.73	6.41	6.29	6.33	6.23	6.08	5.76	5.55	5.31	5.56	7.31	7.14	7.23	6.73	5.74	5.87	5.91	5.93	-0.40	-6.3%
New Mexico	14.40	14.98	15.40	16.42	15.78	15.27	16.79	16.26	14.83	16.37	16.06	14.37	15.09	15.75	16.71	16.12	16.10	15.98	-0.44	-2.7%
New York	11.13	10.52	10.23	10.52	10.57	10.23	10.27	9.96	9.66	10.27	10.02	9.66	9.69	9.21	8.31	6.94	6.63	6.82	-3.70	-35.2%
North Carolina	14.93	15.11	15.46	15.91	15.82	15.96	16.00	15.41	15.23	16.13	16.13	16.30	15.57	15.71	14.86	13.34	13.58	13.25	-2.66	-16.7%
North Dakota	8.71	13.38	16.28	15.14	16.18	13.99	18.97	16.14	14.12	13.70	14.68	13.85	13.51	16.34	14.49	15.03	14.70	13.14	-2.00	-13.2%
Ohio	7.09	8.03	8.04	7.98	7.93	7.70	6.82	7.61	7.41	7.92	8.17	8.41	8.38	8.46	8.51	7.66	7.08	7.08	-0.90	-11.3%
Oklahoma	9.17	10.69	10.97	11.02	11.13	11.02	11.78	12.59	11.22	10.17	11.08	9.52	10.11	10.49	11.16	11.15	11.30	10.19	-0.83	-7.5%
Oregon	12.08	13.38	13.60	12.25	12.62	11.09	10.27	9.07	9.61	9.85	10.05	9.73	9.44	9.61	9.36	9.37	9.45	7.81	-4.44	-36.2%
Pennsylvania	8.17	9.39	8.85	8.46	8.12	7.39	7.36	7.08	5.83	7.23	7.26	6.84	6.98	6.99	6.84	6.67	6.01	6.18	-2.28	-27.0%
Rhode Island	9.99	11.97	11.37	10.48	10.23	9.91	9.50	9.41	9.16	9.44	8.95	8.88	9.05	8.62	7.88	6.15	6.16	5.62	-4.86	-46.4%
South Carolina	17.06	16.15	15.49	16.38	16.31	16.65	15.89	14.69	13.82	15.04	15.13	13.66	14.02	13.66	13.47	11.97	11.50	10.18	-6.18	-37.8%
South Dakota	9.98	11.41	11.70	11.09	10.54	9.97	9.64	8.83	7.81	8.45	7.93	8.85	8.70	9.46	9.34	8.85	9.24	9.22	-1.87	-16.9%
Tennessee	10.05	9.80	10.20	11.28	11.15	10.51	10.05	9.61	9.14	10.62	11.15	11.09	10.78	10.71	10.25	8.93	9.16	9.06	-2.22	-19.7%
Texas	9.44	13.33	13.56	11.94	13.08	12.46	13.99	12.85	12.84	12.87	10.97	9.92	9.65	10.68	9.67	9.90	9.37	9.85	-2.09	-17.5%
Utah	16.08	17.34	17.83	17.58	16.93	16.35	15.54	15.56	14.10	15.54	15.52	14.07	13.60	13.21	13.25	13.21	13.36	12.84	-4.74	-27.0%
Vermont	10.70	8.62	8.92	9.41	8.46	8.43	8.44	8.38	7.92	7.96	7.80	7.00	6.87	7.03	6.45	5.64	5.38	5.03	-4.38	-46.5%
Virginia	10.31	11.00	10.36	12.08	11.24	11.42	10.81	10.97	9.84	10.53	10.27	10.27	10.59	10.42	9.34	8.43	7.40	7.03	-5.05	-41.8%
Washington	13.15	14.00	15.48	13.81	14.59	12.46	11.66	10.47	11.01	10.82	10.59	10.13	10.16	10.32	10.00	9.74	9.31	8.81	-5.00	-36.2%
West Virginia	12.53	12.91	12.71	13.31	12.88	12.27	12.60	11.81	11.41	12.23	12.27	11.66	12.08	11.42	11.46	11.29	11.05	10.69	-2.62	-19.7%
Wisconsin	15.08	13.94	14.17	13.53	13.30	12.78	12.06	11.56	11.69	11.46	11.02	10.60	10.42	10.55	10.54	10.02	10.16	9.76	-3.77	-27.9%
Wyoming	14.67	14.74	16.54	15.31	14.12	15.79	16.04	16.94	16.64	16.45	17.65	17.61	18.43	17.81	17.54	16.93	15.69	14.74	-0.57	-3.7%
All States	$10.36	$11.05	$11.12	$11.22	$11.16	$10.88	$10.64	$10.12	$10.45	$10.28	$10.22	$9.68	$9.60	$9.74	$9.39	$8.82	$8.21	$7.96	$-3.26	-29.1%

Appropriations of State Tax Funds for Operating Expenses of Higher Education per $1000 of Personal Income 1993-94



are shown per $1000 of personal income. This convention facilitates both comparisons across states as well as comparisons over time because inflation can be ignored. In this analysis, variations within states over time are more important than differences between states at any one point in time.

State Appropriations for 1993-94

For the current academic and fiscal year, states appropriated $7.96 from each $1000 of personal income from their tax revenues. The range was from $3.20 in **New Hampshire**, to $15.98 in **New Mexico**.

Generally, states ranking at the top are western states with small private college sectors. Similarly, states ranking at the bottom are New England states with substantial private college sectors. However, states from regions of the United States are dispersed throughout this ranking.

Changes in State Appropriations Over Last 15 Years

Nationally, state appropriations of tax funds for higher education per $1000 of personal income peaked in 1978-79 at $11.22 and have declined steadily and substantially through 1993-94 when they reached $7.96. The most recent appropriation was 70.9 percent of the peak reached fifteen years earlier.

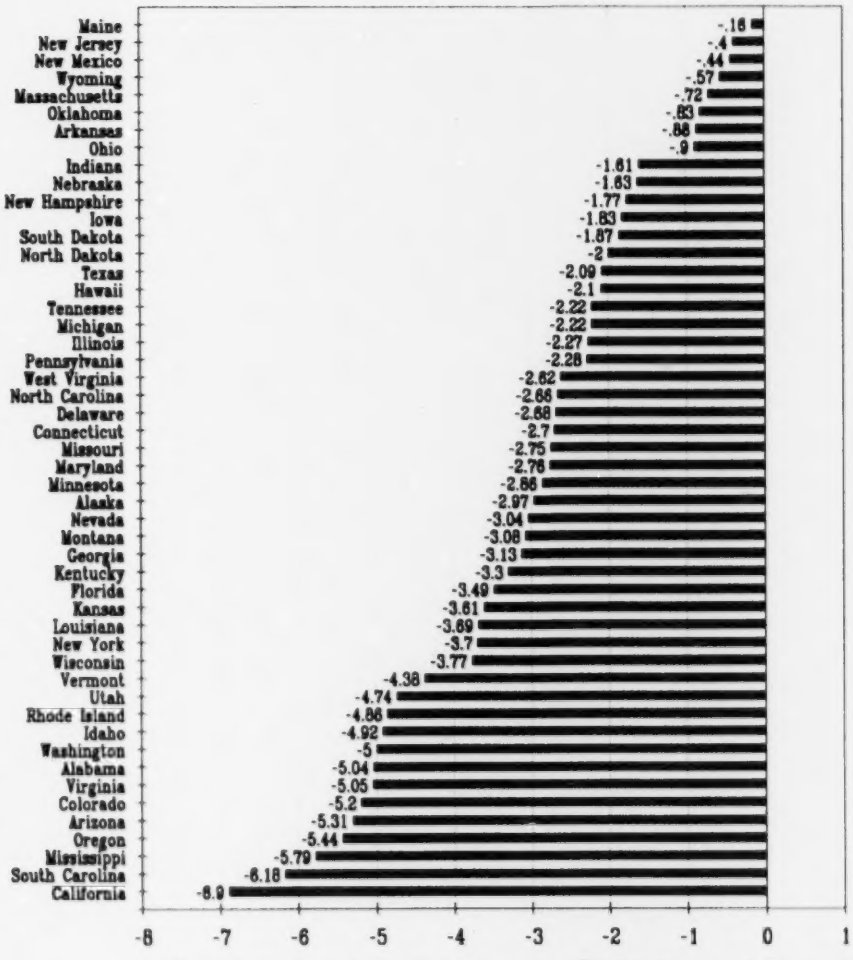
More important here, some version of this decline occurred in each and every state during the last 15 years.

For most states, tax fund appropriations for higher education had peaked between fiscal years 1975 and 1979 although a few reached peaks during the 1980s. One state--Ohio--peaked in 1990-91, although it had historically been a very low tax effort state in support of higher education and remains so today.

After the peaks were reached, state appropriations began general declines. Some states reached their nadirs rather quickly in 1983-84 following the recessions of the early 1980s. The more general pattern has been decline reaching the lowest state tax support levels in the current 1993-94 fiscal and academic year. Of the 50 states, 26 were at their lowest level of support in 1993-94, and three each in 1992-93 and 1991-92.

No state's decline in state tax support for higher education matches the collapse that has occurred (and continues to occur) in **California**. Over the last fifteen years state appropriations per $1000 of personal income have declined by 51 percent or $6.90, from $13.47 in 1978-79 to $6.57 in 1993-94. The state's continuing huge budget imbalance make it likely that state tax effort in

Change in Appropriations of State Tax Funds for Operating Expenses of Higher Education per $1000 of Personal Income Between 1978-79 and 1993-94



support of higher education will continue to erode for the next several fiscal years.

However, eight other states have reduced their state tax support for higher education by $5.00 or more since 1978-79. They are **South Carolina** (-$6.18), **Mississippi** (-$5.79), **Oregon** (-$5.44), **Arizona** (-$5.31), **Colorado** (-$5.20), **Virginia** (-$5.05), **Alabama** (-$5.04) and **Washington** (-$5.00). The other states with the largest percentage reductions in state tax support for higher education since 1978-79 are **Vermont** (-46.5%), **Rhode Island** (-46.4%), **Virginia** (-41.8%) and **Colorado** (-41.1%).

Through this difficult period for state finance of higher education, a few states stand out by their maintenance of effort. On both a dollar and percentage basis, **Maine** came closest of any state to maintaining its historical effort in support of higher education. Between 1978-79 and 1993-94, state tax effort in support of higher education declined by $.16, or 2.2 percent.

Other states that came close to maintaining their previous tax effort support levels were **New Mexico, Wyoming, New Jersey, Oklahoma,** and **Arkansas.**

Summary and Conclusions

The public refinancing of higher education has been underway now for the last fifteen years. It is occurring in every one of the 50 states. The refinancing amounts to a prolonged, widespread, and very substantial reduction in the share of state resources allocated to the support of higher education.

Moreover, this refinancing has proceeded virtually unabated through economic expansion and recession, through good times and bad, under governors and legislatures of every persuasion.

The state refinancing has parallels at both the federal and local levels of government: the shares of both that are allocated to support higher education are substantially below levels reached by the end of the 1970s.

Clearly a great change has occurred in the way society views and values higher education. Competing demands on public resources have been allocated an increasing share--at the expense of higher education's historic share. At the state level these higher priorities have been health care for the poor through Medicaid, and locking up an ever larger share of society's young males in prisons. Neither offers quite the future that social investments in higher education have produced in the past and promise for the future.

Shifting Responsibilities . . . *. . . to Students*

State Flagship University Tuitions Up 8 Percent in 1993-94 and 44 Percent Over Last Four Years

Public college tuitions increased by 8.0 percent again in 1993-94 over prior year levels, as they have for the last fifteen years (see preceding report):

- *Resident undergraduate tuition and required fees at state flagship universities increased by 8.0 percent over the prior year. The range in increases was from 0.9 percent in **Mississippi** to 22.2 percent in **California**.*
- *In regional state universities and colleges, the increase averaged 7.2 percent. The range was from no increase in **Nevada** to 16.0 percent in **Arizona**.*
- *In community colleges the increase averaged 7.3 percent. The range was from a -0.4 percent decrease in **Mississippi** to an 85.7 percent increase in **California**.*

The shift in responsibility for financing public higher education from taxpayers to students is reflected in the sharp annual tuition increases students have been expected to pay over the last fifteen years. These increases far surpass inflation increases, increases in family incomes, enrollment increases, or anything else related to higher education for that matter

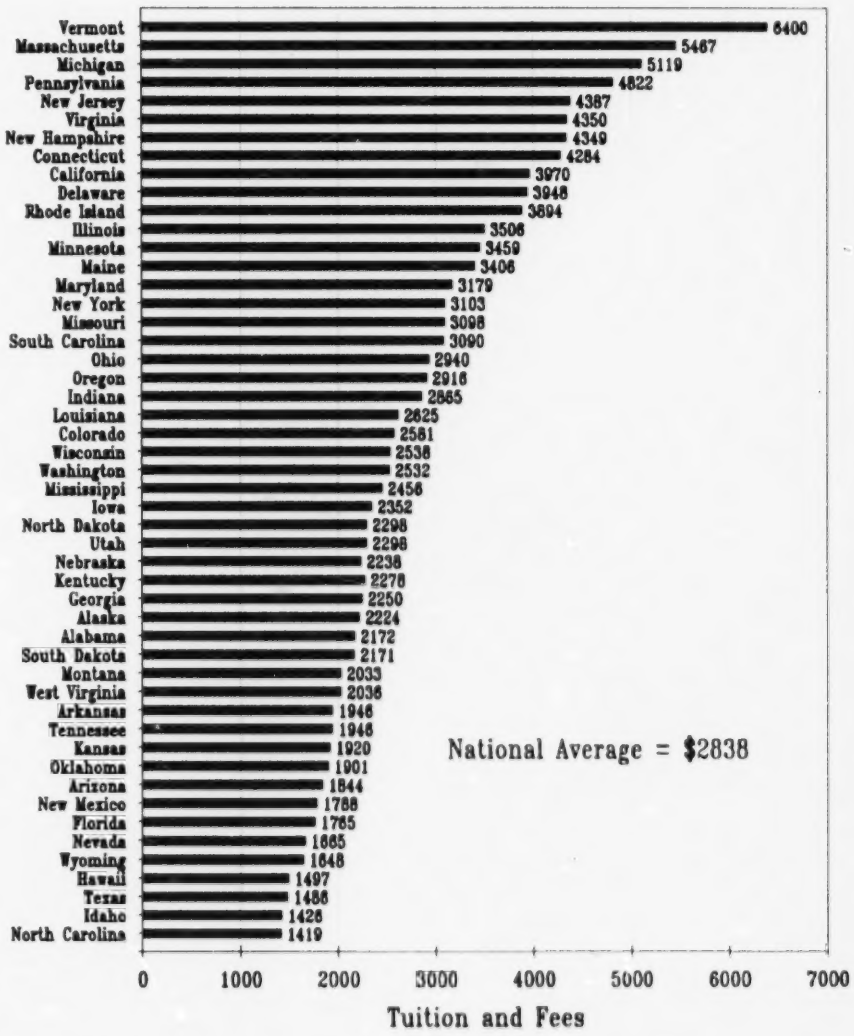
In this report we use data collected by Jackie Johnson and reported by the State of Washington Higher Education Coordinating Board to illustrate the real growth in tuition and fee charges to undergraduate students in public universities, 4 year colleges and community colleges.

Flagship Tuition and Fees

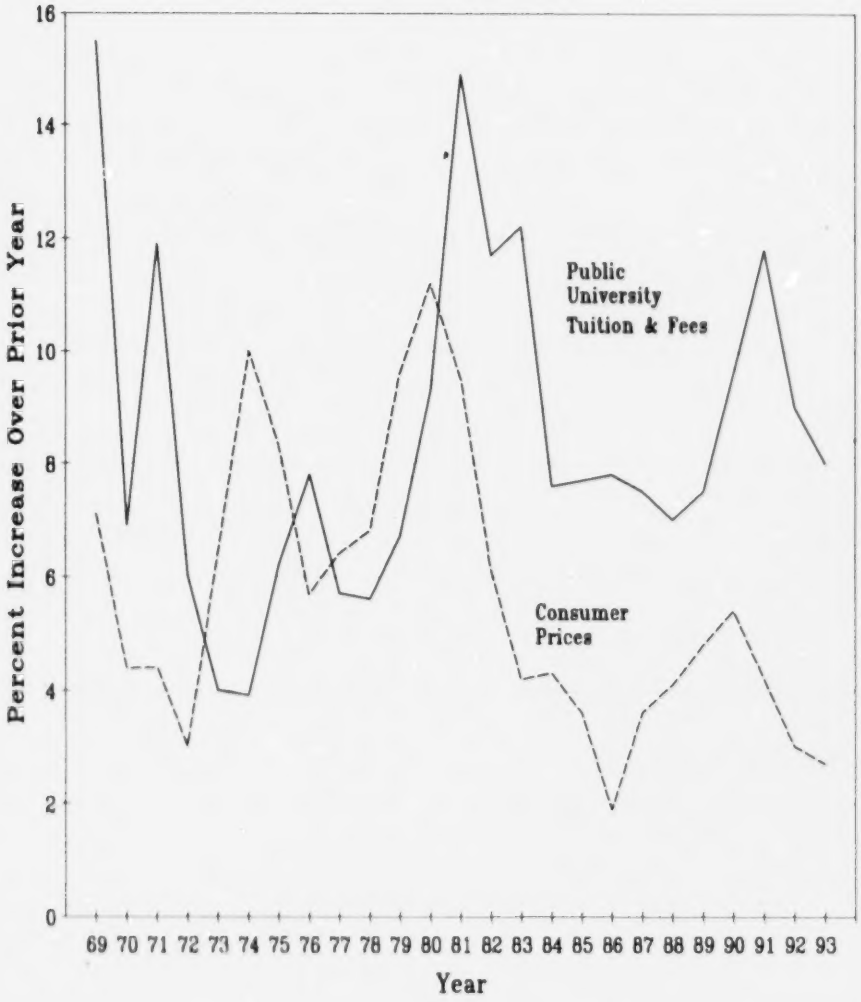
State flagship universities are just what you imagine them to be. In California it is UC/Berkeley, in Colorado it is UC/Boulder, in Illinois it is UI/Urbana, in Massachusetts it is U Mass/Amherst, and so on. Typically these are selective admissions institutions and attract undergraduates from high family income backgrounds. They also usually charge the highest tuitions in state public institutions (except Ohio and two other states).

In 1993-94 average tuition and fees for

Resident Undergraduate Tuition and Required Fees
Universities, 1993-94



Annual Percentage Increases in Public University Tuition and Consumer Prices 1969 to 1993



resident undergraduates was $2838, up from $2637 a year earlier and $1968 in 1989-90. Across the states, tuition rates ranged from $1419 at the University of North Carolina at Chapel Hill to $6400 at the University of Vermont.

Change in Tuition Rates

Until 1981 there was a strong correlation between changes in consumer prices (as measured by the Consumer Price Index) and changes in public university tuition and fee rates. When consumer prices increased, about two years later public university tuition and fee rates would increase. When consumer prices decreased, two years later public university tuitions followed with similar decreases, and by roughly similar amounts. This lagged correlation persisted between 1968-69 and about 1979-80: average public flagship university tuition increases exceeded consumer price increases by 0.5 percent each year.

All this changed in 1981. Beginning in 1981 the correlation continued, but public university tuition fluctuations lagged consumer price increases by only a single year.

More important, the relative magnitudes diverged. Between 1981 and 1993 public university tuition and fee increases exceeded consumer price increases by an average of 5.0 percent each year, or by ten times the average of the preceding decade.

The simple difference between the rate of tuition and consumer price increases in the 1969-80 and 1981-93 eras reflects the fundamental shift in responsibilities for financing higher education that occurred around 1980. As society began to cut back in its support for higher education about 1980, public higher education institutions began to increase tuition charges to students far in excess of normal inflation in order to capture revenues needed to maintain capacity and quality for students seeking admission.

Moreover, as annual tuition and fee increases have accelerated, annual changes in per capita personal money income have decelerated.

- Between fiscal years 1973 and 1980, annual increases in public flagship university tuition and fees averaged 4.0 percent *less* than the average annual increase in per capita personal money income.
- Between fiscal years 1981 and 1990, annual increases in public flagship university tuition and fees averaged 2.4 percent *more* than the average annual increase in per capita personal money income.
- For the last three fiscal years, 1991 through 1993, annual public university tuition increases have averaged 7.9 percent *more* than the very modest average annual increases in per capita personal

money income.

The implications of these changes for student financial aid policy and funding could not be more forceful and clear.

The change in public university flagship tuition rates by state between 1980-81 and 1993-94--when tuition increases were far outstripping increases in both consumer prices and per capita personal money income--are shown in the chart to the right on this page.

For reference purposes, between 1980 and 1993 consumer prices increased by 75.1 percent, per capita personal money income (through 1992) increased by 93.1 percent, and public flagship university tuition and fees increased by an average of 221.4 percent.

The state with the smallest percentage increase in its state flagship university tuition rate was **Nevada**. But even here, the percentage increase in tuition was nearly double the percentage increase in consumer prices during the same period of time, and well above national growth in per capita personal money income.

At the other extreme are states that have experienced significant economic recessions and state budget shortfalls. In both **California** and **Massachusetts**, state budget shortfalls in the billions of dollars have resulted in both massive retrenchment in state appropriations support for higher education and the largest percentage tuition increases in public flagship universities among the 50 states. The state budget practice of reducing taxpayer support for higher education and raising tuition charges to students are most clearly shown in such states.

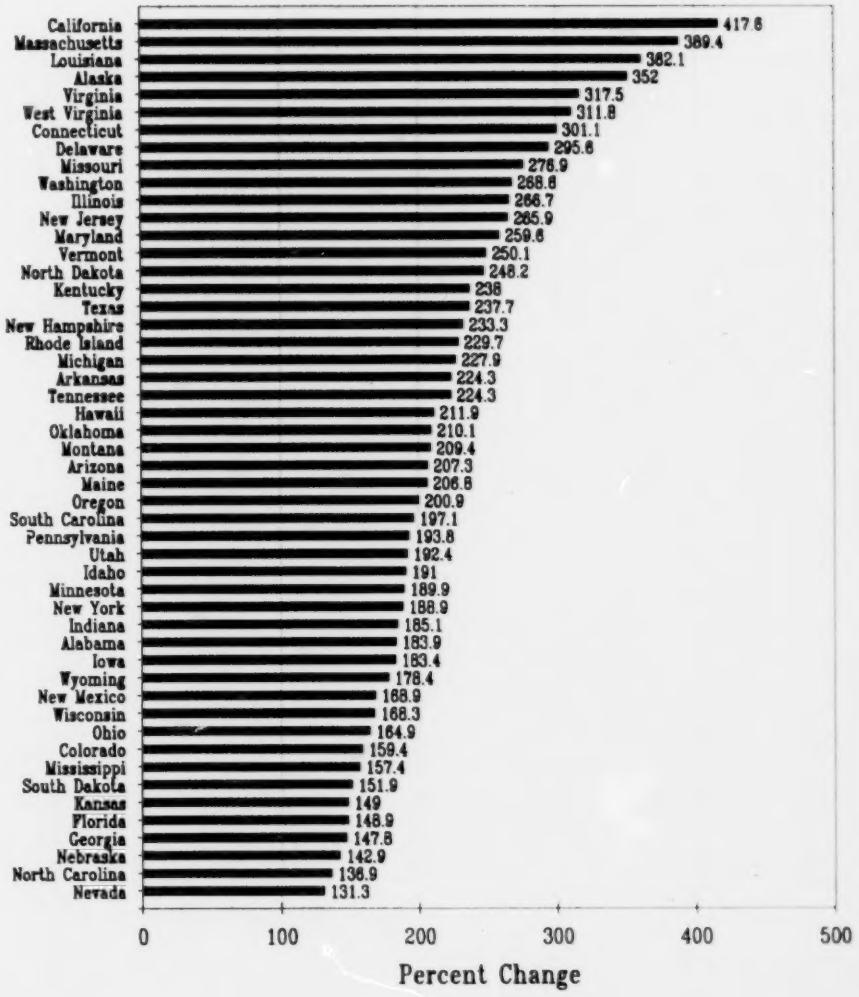
Responsibility Shifted to Students

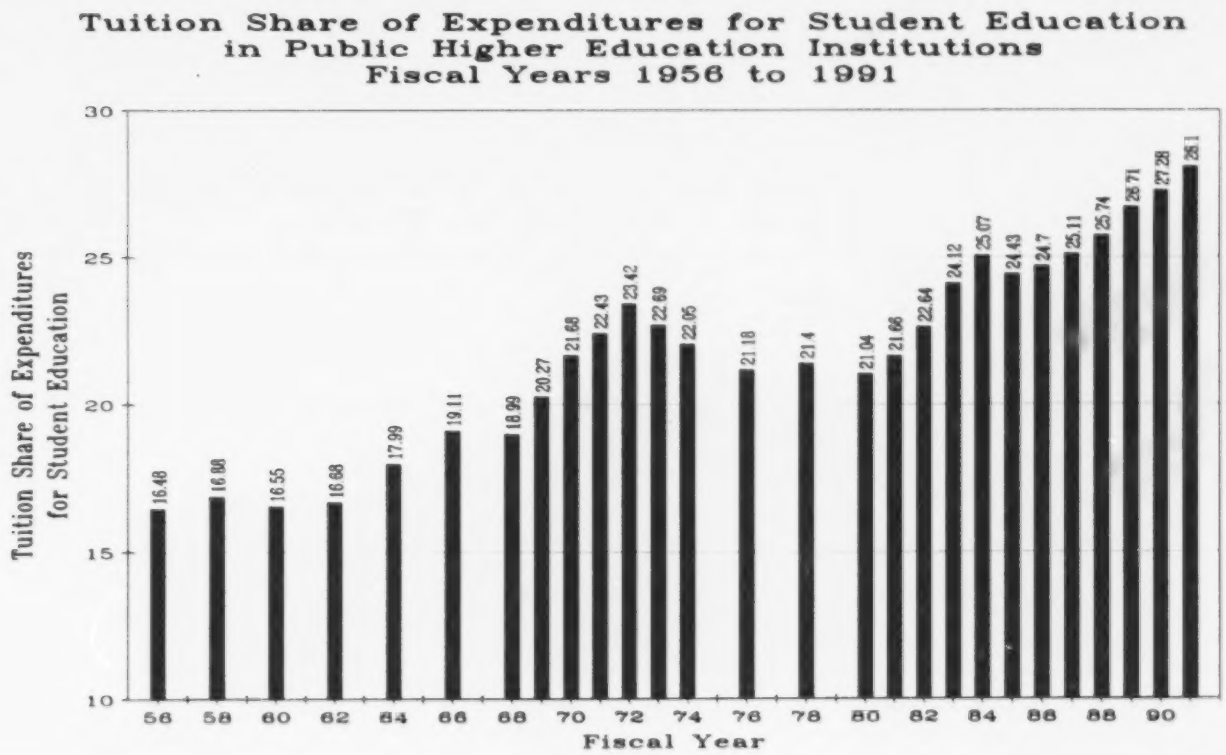
The extraordinary increases in public university undergraduate tuition and fees far surpass anything resembling either normal inflation or increases in peoples' incomes to pay them. Instead they are a direct result of student tuition charges being raised to cover a growing proportion of costs of educating students in public higher education.

Financial data reported by institutions to the National Center for Education Statistics through annual surveys documents this shift. The most recently published data in this survey is for 1990-91. Data have been collected and reported for decades, and a part of that data is shown on the chart on the following page.

In 1990-91 public higher education revenues from tuition charges covered 28.1 percent of the costs of educating students in colleges and universities. This was up from 21.0 percent in

Change in State Flagship University Undergraduate Tuition and Fees 1980-81 to 1993-94





1979-80 and about 16.5 percent between 1955-56 and 1961-62.

The pattern is clear: as states cut back in their state tax fund support for higher education the responsibility for financing public higher education is being shifted from taxpayers generally to students and their families.

By private college standards, the tuition effort required of students in public institutions appears modest indeed. In private higher education, tuition revenues covered 71.3 percent of costs of educating students in 1990-91--up from 66.6 percent in 1979-80.

Other Issues

Currently in public higher education students who pay full tuition costs without financial aid pay for about 30 percent of the cost of their educations and somebody else--taxpayers--pays the rest. From the perspective of benefits and responsibilities, this does not reflect the distribution of private and public benefits from a higher education investment.

As our analysis of Census Bureau data from 1990 has pointed out (OPPORTUNITY September 1993), a baccalaureate degree adds an average of $466,000 to one's lifetime over the earnings of a high school graduate. (The advantage is $554,000 for males, $309,000 for females, $471,000 for whites, $404,000 for blacks, and $313,000 for Hispanics.) Taxpayers get a large chunk of this back in increased tax revenues, but certainly not 70 percent of this increase that would reflect what they shell out in public institution subsidies to lower tuition charges to students.

Then there is the problem of interstate mobility. The state where this newsletter originates is known for its corn and hog exports. But it should be known for its export of college graduates to other states. Iowa invests extraordinary sums in its public higher education students only to see those students leave for employment and tax paying in other states. Public higher education remains centrally a state funding responsibility. Yet many states export their higher educated talent freely to other states. The importing states rejoice, and the exporters lose their investment.

Finally there is the question of who can afford current or future (presumably much higher) public institution tuitions. There is solid evidence that public universities enroll more non-needy students than does any other type of higher education system. Subsidizing 70 percent of the costs of educating such affluent students at the expenses of adequate and appropriate financial aid for needy students is an inefficient use of scare resources needed to substantially broaden postsecondary educational opportunity.

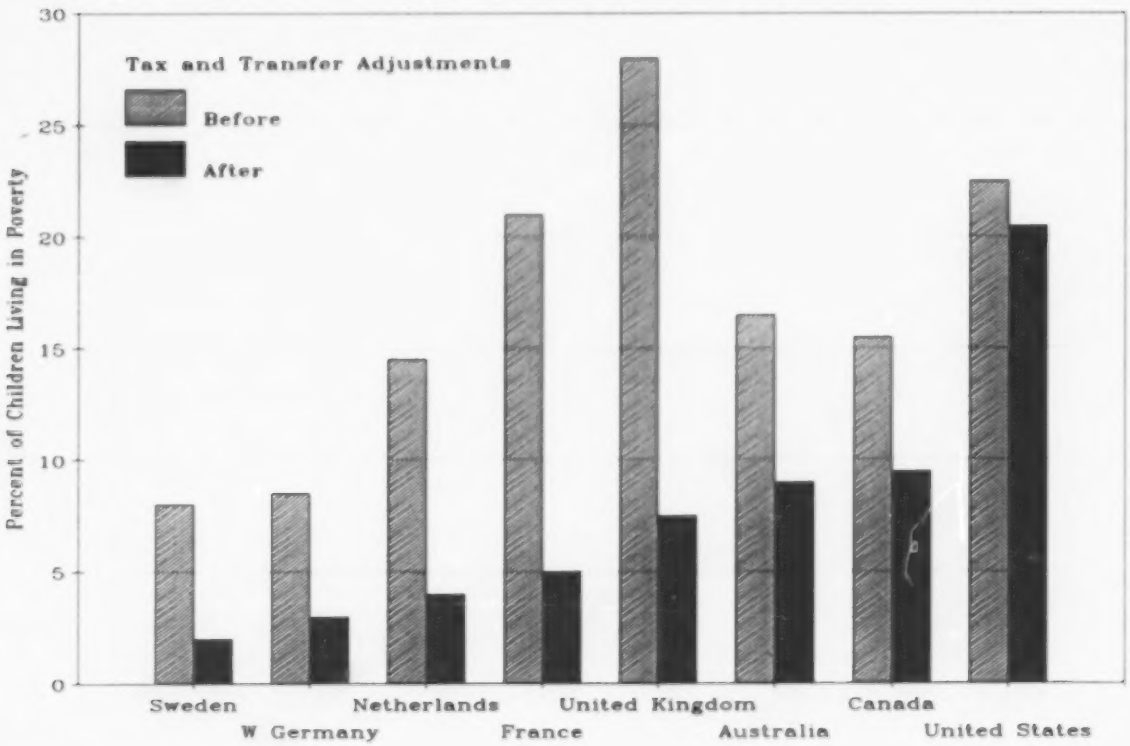
This About This for a While . . .

Our Children, Our Future

The day will come when the Progress of nations will be judged not by their military or economic strength, nor by the splendour of their capital cities and public buildings, but by the well-being of their peoples: by their levels of health, nutrition and education; by their opportunities to earn a fair reward for their labours; by their ability to participate in the decisions that affect their lives; by the respect that is shown for their civil and political liberties; by the provision that is made for those who are vulnerable and disadvantaged; and by the protection that is afforded to the growing minds and bodies of their children.

--**The Progress of Nations**, United Nations Children's Fund, 1993.

Child Poverty Rates in Western Countries Before and After Tax and Transfer Adjustments 1986



The child poverty rate in the **United States** in 1986--20 percent--was more than twice the child poverty rate of any other western industrialized country.

Canada, Australia and the **United Kingdom**--the other English speaking nations--form a second group with 7 to 9 percent of their children below poverty. (Do you suppose the language has something to do with it?) **Sweden**, the former **West Germany**, **Netherlands** and **France** all have child poverty rates below 5 percent.

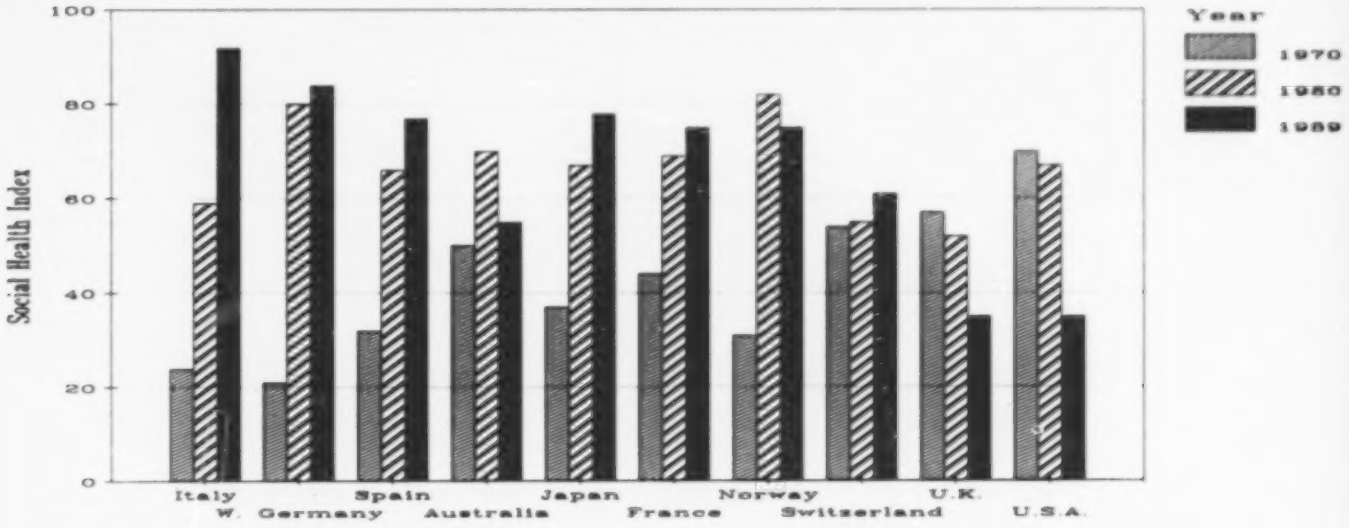
The **United States** stands out from the other countries by the failure of its tax and transfer policies to reduce poverty to the same degree that other western industrial countries have managed to do so. Expressed another way: we just don't seem to care as much as do other nations about our children.

Another measure of the progress in improving the social health of children in industrialized countries has been prepared by Fordham University's Institute for Innovation in Social Policy. Here four measures of children's welfare are used to calculate a social health index *that charts progress within a country, not between countries*. The four measures are: infant mortality, government spending on education, teenage suicide, and income distribution.

Countries that made the most progress were **Italy** and **West Germany**.

Two countries stand out in that their children were worse off in 1989 than they were in 1970: the **United Kingdom** and, especially, the **United States**. Most of the erosion in child welfare in the United States occurred during the 1980s, according the Fordham analysis.

The Social Health of Children in Industrialized Countries
1970, 1980, and 1989



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Postsecondary Education
OPPORTUNITY

The Mortenson Research Letter on Public Policy Analysis of Opportunity for Postsecondary Education

Number 23 **Iowa City, Iowa** **May 1994**

Hispanic Educational Progress: Turning the Corner, But So Far to Go . . .

Hispanics lag the dominant white population on all measures of educational attainment. Moreover, these differences are greater for Hispanics than they are for other disadvantaged populations, such as blacks. These educational limitations are increasingly important in a labor market that reserves the best paying jobs for individuals with postsecondary educations, and offers the worst paying jobs to those with least educational attainment.

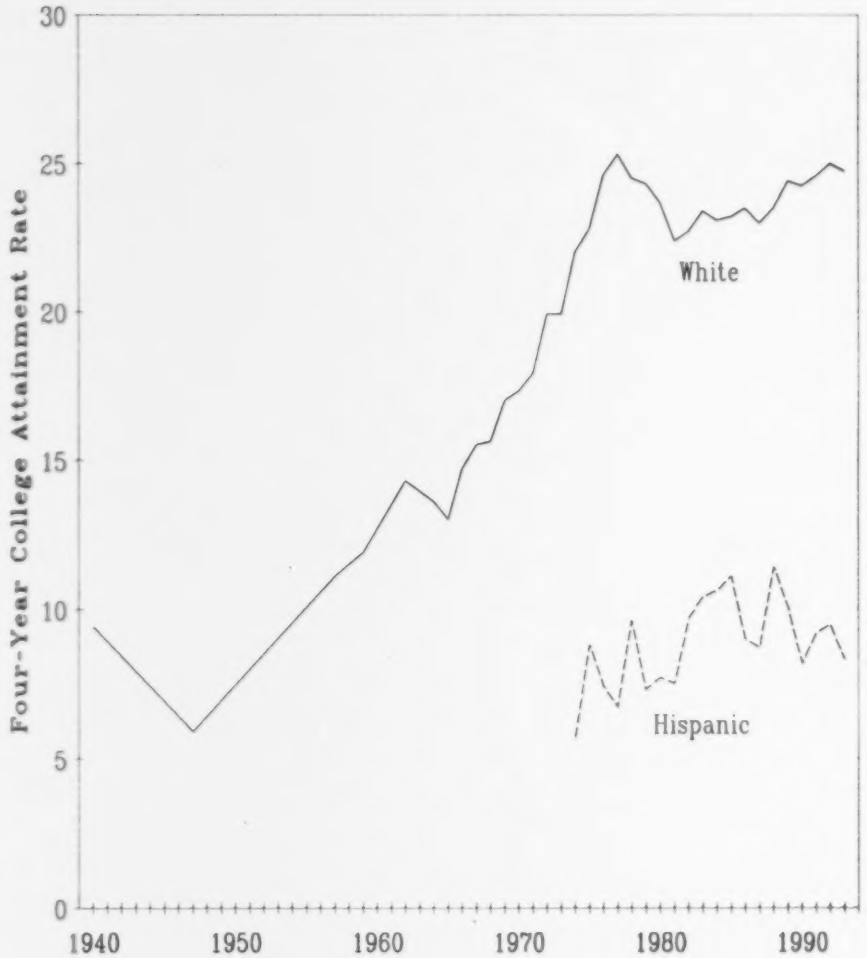
In our analysis of Census Bureau and other data, we see signs of improvement in Hispanic educational attainment in several areas, including:

- *Hispanic performance compared to whites on college admissions tests shows steady improvement since the late 1970s.*
- *High school graduation rates appear to be improving.*
- *College enrollment rates for Hispanic high school graduates, particularly Mexican-Americans, are higher than they have ever been.*

Despite :hese positive signs, Hispanics have an extraordinarily long way to go to reach equality with whites. The progress is slow in some areas, and absent in others:

- *The high school graduation rate among 18 to 19 year old other Hispanics (non-Mexican-Americans) has dropped below the low rates for Mexican-Americans.*
- *Four-year college completion rates for Hispanics who start college appear to be low and dropping.*

Four-Year College Attainment Rate
for Whites and Hispanics Ages 25 to 29 Years
1940 to 1993



- *For the last six years, while the proportion of whites ages 25 to 29 years with four years or more of college has been increasing, the proportion for Hispanics--low to begin with--has been dropping.*

Hispanics represent a large and

growing share of the American population and workforce. Unless and until educational attainment is substantially improved, the economic welfare of Hispanics will continue to lag the standard of living enjoyed by the better educated dominant white population.

Our analysis of the educational progress of Hispanics is an update and extension of our first report on Hispanics in the December 1992 issue of **OPPORTUNITY**. Our analysis supplements the many informative reports published recently by the Census Bureau, American Council on Education, Hispanic Association of Colleges and Universities, and others. Our analysis is based on the most recent Current Population Survey and other data on school enrollments and educational attainment only very recently made available for our analysis and not yet published by the Census Bureau.

The Hispanic Population

There are about 24 million Hispanics in the United States, or about 9.5 percent of the population. Hispanics may be of any race--they are an ethnic group, not a racial group--but are primarily white and most are included in white population counts.

By far the largest Hispanic population group by origin are the Mexicans. At the time of the 1990 Census they comprised 60 percent of the total, followed by Puerto Ricans (12%), Cubans (5%), with all of the rest in the balance of 23 percent. The balance included those from Central and South America and Spain.

Hispanics are quite concentrated in a relatively few states. **California** has the largest concentration with 34 percent of the total, followed by **Texas** (19 %), **New York** (10%) and **Florida** (7%). Other states with one percent or more of the Hispanic population are **Illinois, New Jersey, Arizona, New Mexico, Colorado,** and **Massachusetts**.

Hispanics are the largest proportion of the state's population in **New Mexico** (38%), **California** (26%), **Texas** (26%), **Arizona** (19%), **Colorado** (13%), **New York** (12%), **Florida** (12%), **Nevada** (10%), and **New Jersey** (10%). The proportion of these states' populations that is Hispanic increased by two percent or more between 1980 and 1990 in each of the above states.

Other characteristics of the Hispanic population include:

- Hispanics are more likely to live in metropolitan areas (90%) than non-Hispanics (76%).
- Median age for Hispanics is 26 years, compared to 34 years among non-Hispanics. Cubans were the oldest Hispanics (40 years), and Mexicans the youngest (24 years).
- Hispanic families were more likely to have children (63%) than were non-Hispanic families (47%).

U.S. Bureau of the Census, Current Population Reports, P-23-183. ***Hispanic Americans Today***. U.S. Government Printing Office, Washington, DC, 1993.

High School Graduation

To attain the baccalaureate degree that provides access to the best paying jobs in the labor force, a person must pass three hurdles: first graduate from high school, then enroll in college, and finally complete four years or more of college. To describe the progress and problems of Hispanic educational attainment, we examine each of these three steps separately over the years of available data--usually since the mid-1970s.

As the first chart on the following page makes clear, Hispanics have a serious problem surmounting the first hurdle on the path toward a baccalaureate degree.

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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement

This research letter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this research letter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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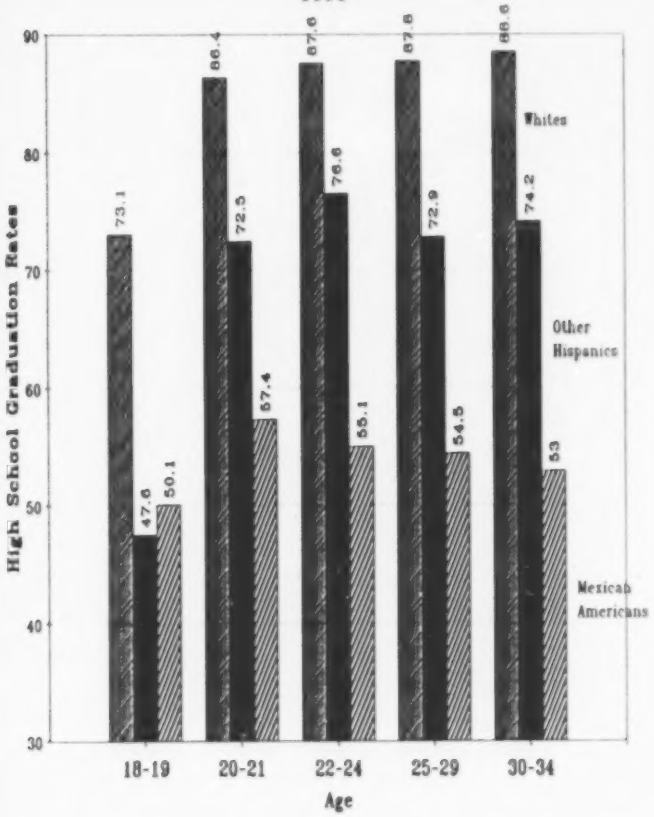
By October of 1993 only about half of Hispanics ages 18 and 19 years had graduated from high school, compared to 73 percent for whites. By ages 20 to 21, only 57 percent of the Mexican-Americans had graduated from high school, compared to 73 percent for other Hispanics and 86 percent of whites (which includes most Hispanics, as previously noted). This gap, once opened, does not close among older groups of the U.S. population.

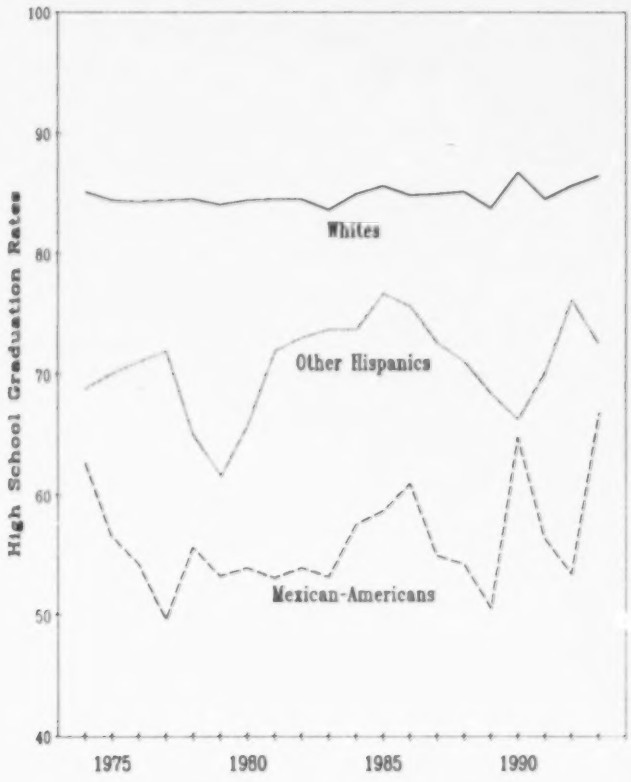
High School Graduation Rates by Age
for Whites, Mexican-Americans, and Other Hispanics
1993



Over the last twenty years, between 1974 and 1993, the high school graduation rate for 20 to 21 year olds has remained flat for whites, but has shown some erratic improvement for both Mexican-Americans and other Hispanic young adults.

The pattern that has persisted over the last 20 years is for whites to have the highest high school graduation rates, Mexican-Americans the lowest, and other Hispanics to range between them. Between 1983 and 1993 the difference between the white and Mexican-American rates has narrowed somewhat, and the same is probably true for other Hispanics compared to whites as well. (The spikiness in the Hispanic plots is due to the small sample size in the Current Population Survey, resulting in relatively larger standard errors of measurement. Rather than focus on year-to-year fluctuations, the reader is encouraged to look for the more important trends over time that are evident in most of these charts.)

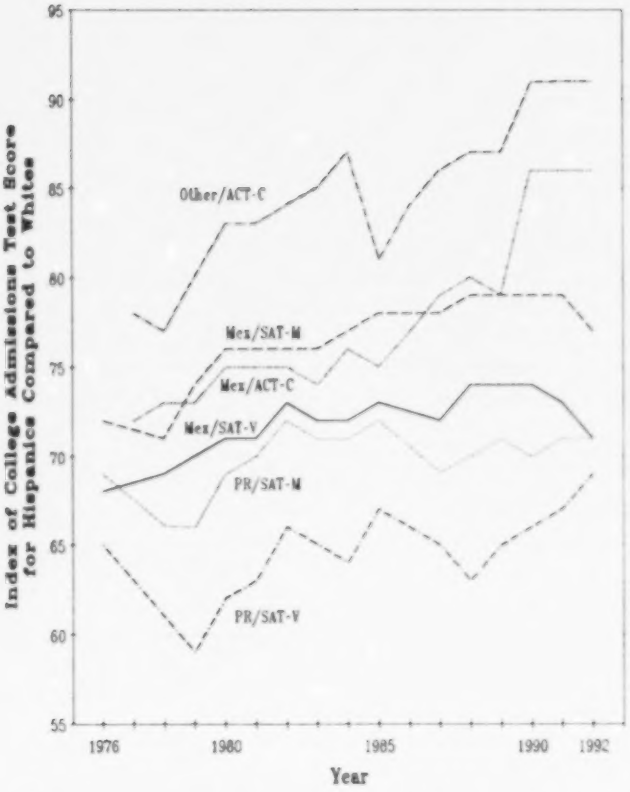
High School Graduation Rates for 20-21 Year Old
Whites, Mexican-Americans and Other Hispanics
1974 to 1993



In addition to *quantitatively* becoming better prepared for college by increasing high school graduation rates, we have examined one dimension of *qualitatively* preparing for college. Data collected by the Educational Testing Service on the Scholastic Aptitude Test and the American College Testing Program on the ACT Assessment provide measures of academic potential to succeed in college.

Here we have converted SAT and ACT scores for Hispanic groups to an index score based on the performance of whites who have taken these tests since 1976. The results are shown in the chart on the following page. Generally Puerto Ricans lag whites on the SAT by the largest margins, and Mexican-Americans lag somewhat less. However, the results show trends in improvement of all Hispanic groups compared to whites on all college admissions tests between 1976 and 1992.

Index of Relative Performance by Hispanic Subgroups on Various College Admissions Tests 1976 to 1992



The improvement of Hispanics on standardized tests is by no means limited to the SAT and ACT used for college admission. The National Assessment of Education Progress has shown a closing of the gap between the performance of Hispanics and whites on mathematics, science, reading and other tests administered to nationally representative samples of children at ages 9, 13 and 17. A 1986 study of ***Trends in Education Achievement*** by the Congressional Budget Office noted:

> *Hispanic students, who typically have average scores well below those on nonminority students, showed relative gains over the last decade. The improvement appears to have been greater among Mexican-American students than among other Hispanics. These patterns are less clear-cut, however, because of the more limited data, ambiguities in the classification of diverse Hispanic students, and the relatively small number of Hispanics in the test data.*

Other data reported by the American College Testing Program indicate that college-bound Mexican-American high school seniors are somewhat less likely than whites to have taken a college preparatory curriculum in high school--44 percent for Mexican-Americans compared to 49 percent for whites and 52 percent for other Hispanics in 1990. Among Mexican-Americans, the proportion of college-bound high school seniors who took a college preparatory curriculum in high school ranged from 36 percent for those from families earning less than $6000 per year to 55 percent for those from families earning more than $60,000 per year. During the late 1980s Mexican-American and other Hispanic high school seniors showed sharp increase in college prep course taking.

College Enrollment Rates

Among those who have graduated from high school, the proportion of 18 and 19 year olds enrolled in college for the twenty years between 1974 and 1993 are shown in the following graph. The college enrollment rate for whites increased steadily and sharply--by 19 percent--over the last two decades, from 45 percent in 1974, to 55 percent by 1984, to 64 percent by 1993.

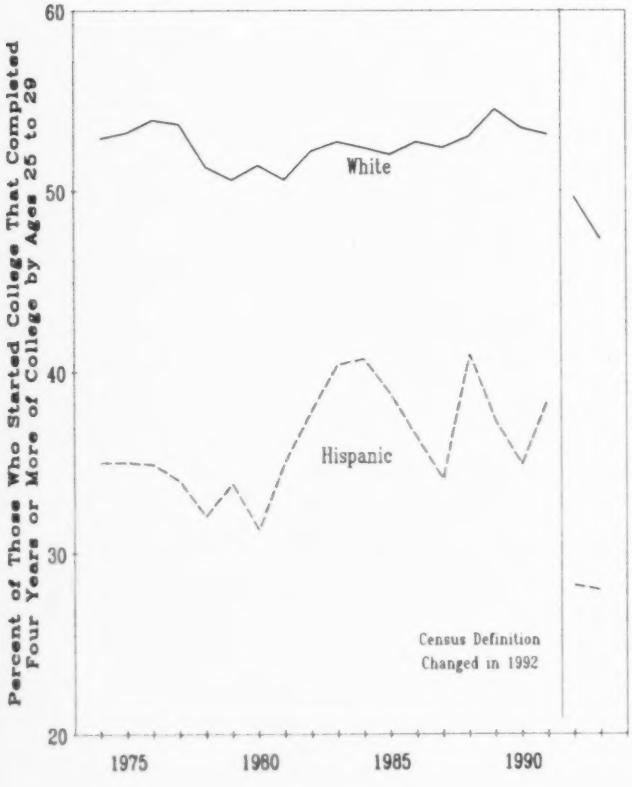
College Enrollment Rates for 18 and 19 Year Old White, Mexican-American and Other Hispanic High School Graduates 1974 to 1993

The college enrollment rate for Mexican-American high school graduates declined from 45 percent in 1974--when it equaled

the rate for whites--to a low of about 37.5 percent from 1978 through 1988. Since 1978 Mexican-American college enrollment rates have increased very sharply, to about 55 percent in 1991, 1992 and 1993. Assuming this is not a statistical fluke resulting from Current Population sampling limitations, the increase in college enrollment rates among 18 and 19 year old Mexican-American high school graduates represents a very substantial gain in college access since 1978.

The college enrollment rate for 18 and 19 year old high school graduates from other Hispanic groups has shown modest growth over the last twenty years. Undoubtedly the origin of Hispanics in this group has changed over the last two decades, from a larger proportion of Cubans from well-educated and affluent families at the beginning of the period to a larger proportion of poorer Central and South American immigrants in the most recent data. The college enrollment rate for other Hispanics, that stood well above the rate for whites from 1974 through 1983, has not only fallen behind the rate for whites but could be surpassed by the Mexican-Americans in the near future as well.

Four-Year College Completion Rates
for Whites and Hispanics Ages 25 to 29 Years
1974 to 1993



Four-Year College Completion Rates

The proportion of those who start college that complete four years or more by ages 25 to 29 years is shown in the following chart for whites and Hispanics for the twenty years between 1974 and 1993. These data are collected in another Current Population Survey in the spring of each year, and when reported in the educational attainment reports they do not disaggregate the Hispanic population into subgroups. All Hispanics are lumped together. Another problem with these data is that beginning in 1992 they have been compiled and reported in a way that differs significantly from the collection and tabulation rules employed between 1974 and 1991.

Nevertheless, the data do offer some insight into four-year college completion rates for Hispanics over the last two decades, and compared to the white population. The most obvious finding is that Hispanics that start college are less likely to complete four years or more by ages 25 to 29 than are whites. This gap is large, persistent, and the available data do not suggest that the difference has narrowed much over the last two decades. In fact, under the new Census Bureau data definition and tabulation rules, the gap is wider than previously reported.

Other reports from the Census Bureau's Ethnic and Hispanic Studies Branch provide useful information on educational attainment of Hispanic sub-groups for recent years. The next chart shows the proportion of Hispanics ages 25 to 34 years by origin that had completed a bachelor's degree or more by March of 1992. Among all Hispanics the proportion was 9.6 percent, compared to 26.1 percent for non-Hispanic whites. Within the Hispanic population, the proportion ranged from 7.4 percent of Mexican-Americans to 20.5 percent of the Cuban-Americans.

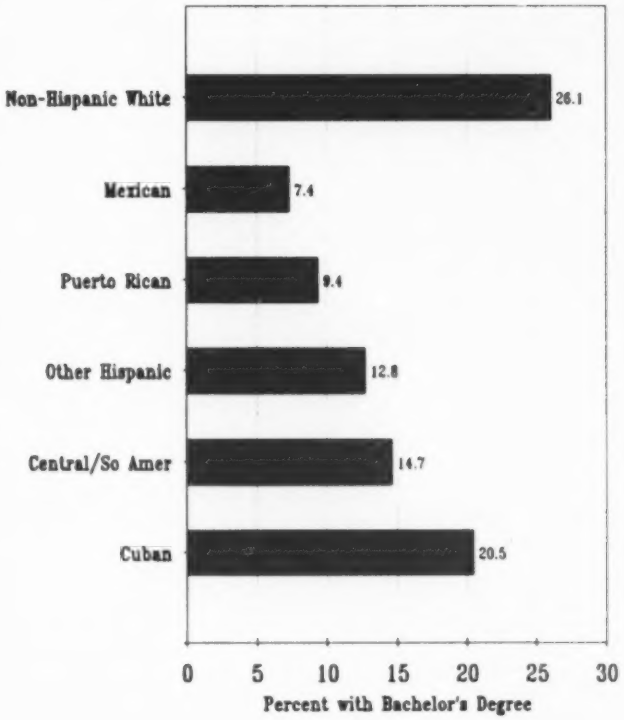
Four-Year College Attainment

The chart on the first page of this research letter shows the proportion of the white and Hispanic populations ages 25 to 29 years that have completed four years or more of college for the periods of available data. To reach this level, each cohort of population had to pass three hurdles: first graduate from high school, then go on to college, then finally complete four years or more of college by ages 25 to 29 years.

In 1993 24.7 percent of the white population had completed four years or more of college by ages 25 to 29, compared to 8.3 percent of the Hispanic population. Roughly speaking, whites were three times more likely to have completed a baccalaureate degree than were Hispanics.

More important, however, is the divergence of these trends during the last five years. Between 1988 and 1993 the four

Four Year College Attainment Rate Among Hispanics Ages 25 to 34 Years 1992

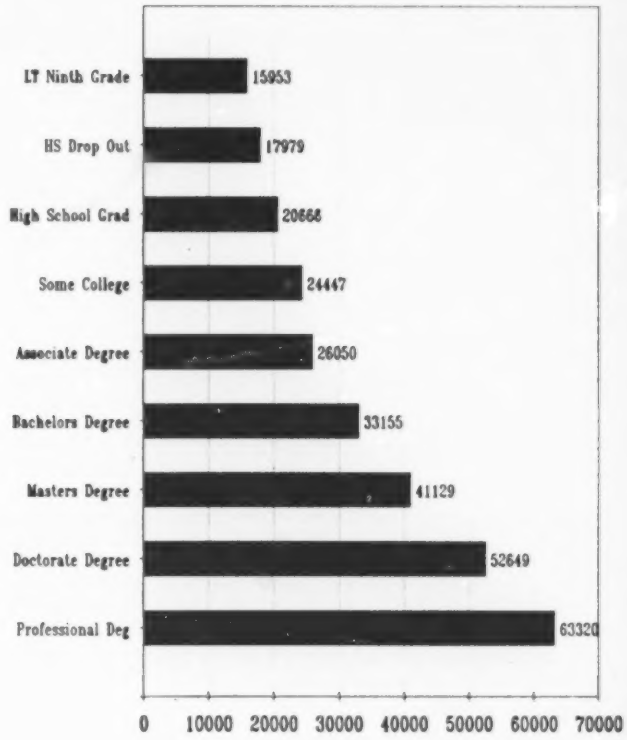


year college attainment rate for whites *increased* by 1.2 percent, while it *decreased* for Hispanics by 2.1 percent. This divergence in the educational attainment of 25 to 29 year olds leads directly to a divergence in access to the better paying jobs in the labor force and the standards of living that result. Quite likely this divergence is only temporary: the relative improvement in high school graduation rates and college enrollment rates among Hispanics compared to whites will eventually translate into improved educational attainment for Hispanics. This potential improvement could, however, be offset by further deterioration in four year college completion rates for Hispanics as it has for blacks.

Annual Earnings by Educational Attainment for Hispanics

Finally, data recently published from the 1990 Census offers direct evidence of the importance of educational attainment to the private welfare of Hispanics. These data show average annual earnings for Hispanic civilians 18 years and over who worked year round full time in 1989. The pattern shown is unremarkable insofar as the findings are similar to those for every population group at every point in time: greater levels of educational attainment lead to greater levels of income, which translate in turn to higher standards of living. In the American economy as it has developed since the early 1970s, Hispanics are subject to this economic law as are all other population groups. Individuals who believe that they can circumvent this law are treated brutally by a labor force that reserves its best paid jobs for those with greatest levels of educational attainment.

Mean Annual Earnings of Hispanic Civilians 18 Years and Over Who Worked Year Round Full Time 1989



For Hispanics, no less than for any other group, progress in educational attainment is vital to improving living standards. It is no longer sufficient to be honest and hard-working. Now Hispanics must become postsecondary educated too.

But Hispanics have farther to go to catch up with other groups such as the dominant white population in educational attainment. The evidence examined here indicates that the needed steps are being taken. Hispanics are improving their high school preparations, both in terms of high school graduation rates and academic preparation for college. They are also continuing on to college at higher rates than in the past. But because Hispanics begin so far behind, their progress must be greater and happen sooner than for others.

State Student Incentive Grant Program: On the Chopping Block, Again

Subpart 4 - Grants to States for State Student Incentives purpose

Sec. 415A. (a) Purpose of Subpart.- It is the purpose of this subpart to make incentive grants available to States to assist States in providing grants to -

(1) eligible students attending institutions of higher education or participating in programs of study abroad that are approved for credit by institutions of higher education at which such students are enrolled; and

(2) eligible students for campus-based community service work-study.

- Higher Education Act of 1965

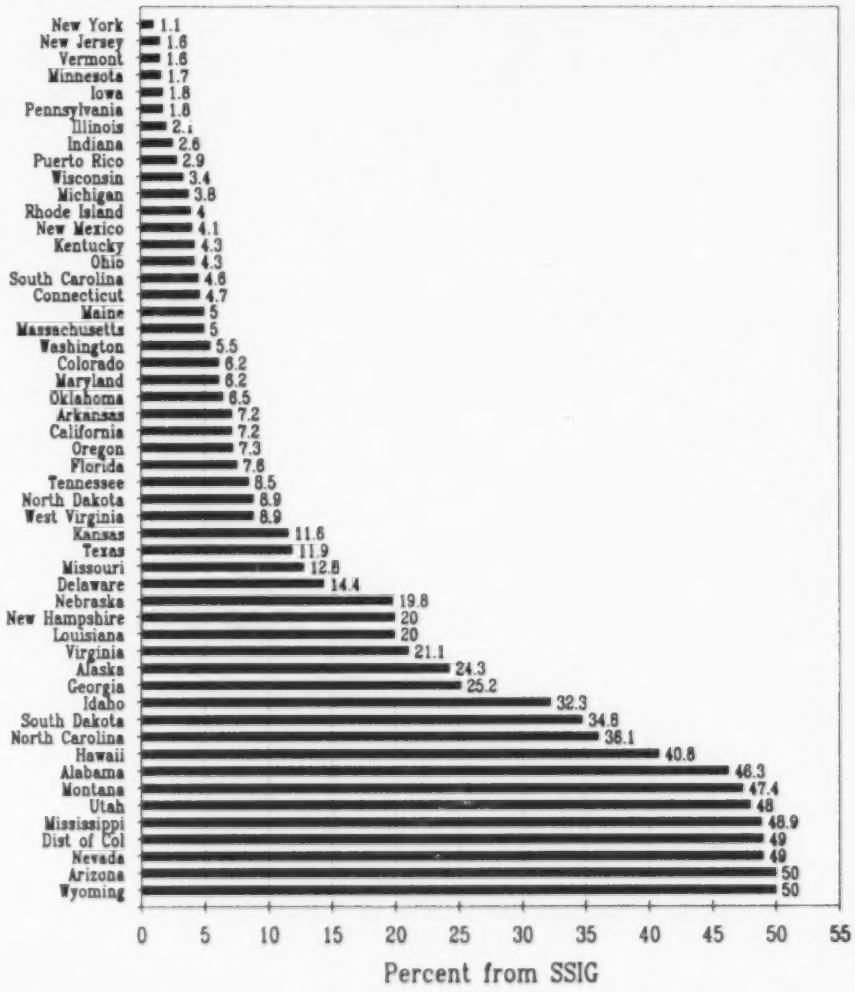
Each year for more than a decade Presidents Reagan, Bush and now Clinton have proposed eliminating funding for the federal State Student Incentive Grant Program (SSIG). Each year the SSIG Program manages to survive the efforts to kill it.

The State Student Incentive Grant Program is a federal program created in 1972 to encourage states to create or expand their own state financial aid grant programs for students with "substantial financial need." The Program receives an annual federal appropriation of about $70 to $75 million which leverages nearly nine times as much from the states

Here we take a brief look at this small program, loved by the states but unloved by the federal executive branch. What we find includes the following:

- ♥ All 50 states now participate in SSIG.
- ♥ Prior to the first federal funding for SSIG in 1974-75, 29 states had state grant programs. Four years later all 50 states had state grant programs.
- ♥ For the 1992-93 academic year, the federal appropriation of $71.9 million for SSIG leveraged $636.6 million in state SSIG matching expenditures.
- ♥ In 1992-93 684,867 students received grants under the SSIG

State Student Incentive Grant Funds
as a Percent of State Need-Based Grant Funds
1992-93



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program, and these grants averaged $1035 each.

- In 1992-93 about 76 percent of the federal funds went to students with incomes below $20,000 per year. About 67 percent of the state funds went to students with incomes below $20,000 per year.

In this report we describe the background behind the State Student Incentive Grant Program, provide recent information on who it is serving, and take a position in favor of preserving it based on the very low income clientele that SSIG serves and because several states still appear to be tenuous in their support of need-based student aid and apparently require federal leveraging to commit to any state grant program funding at all.

This report is based primarily on data from two sources. The first is the Office of Postsecondary Education at the Department of Education--Fred Sellars and Dan Sullivan--who supplied us with recent SSIG Program data. The second is Dr. Jerry Davis, Vice President for Research and Policy Analysis at the Pennsylvania Higher Education Assistance Agency, who has written extensively on the role of SSIG in state creation of and funding for state grant programs for financially needy students.

Davis, J. S. *The Continuing Incentives in the Federal State Student Incentive Grant Program.* Harrisburg, PA: National Association of State Scholarship and Grant Programs and Pennsylvania Higher Education Assistance Agency, January 1994.

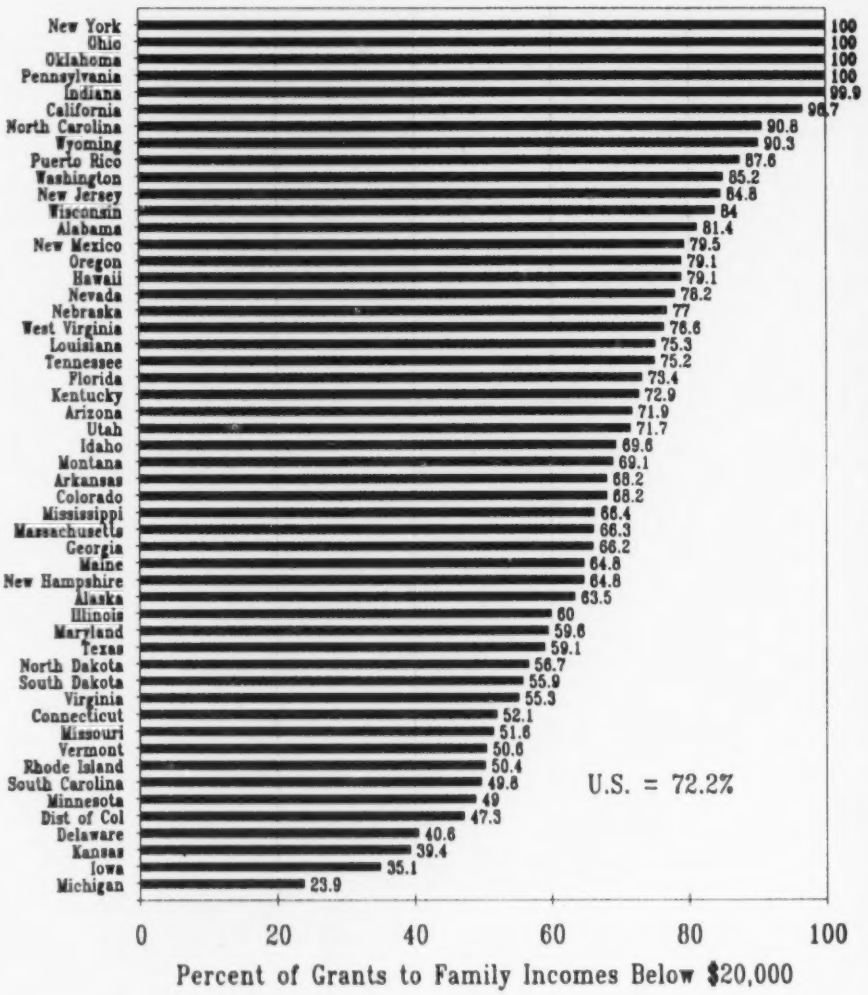
The opinions expressed in the conclusion to this analysis are those of this research letter's editor alone.

Background

The State Student Incentive Grant Program was created in the 1972 Amendments to the Higher Education Act of 1965. Funding for the federal match was first provided for the 1974-75 academic year at $19 million.

In 1973-74 29 states had state grant programs. With the initial federal funding of SSIG the following year, seven states created state grant programs and qualified for federal matching funds. These states were: **Georgia, Kentucky, Nebraska, Oklahoma, South Dakota, Utah and Virginia.** The following year eight more states created state grant programs: **Alabama, Arkansas, Hawaii, Idaho, Louisiana, Mississippi, North Carolina and Wyoming.** In 1976-77 six more states created grant programs: **Alaska, Arizona, District of Columbia, Montana, New Hampshire and New Mexico.** Finally, in 1977-78, **Nevada** became the final state to create a grant program and begin making awards.

State Student Incentive Grant Focus on Students from Lowest Family Incomes 1992-93



State Student Incentive Grant Program, 1992-93

State	Federal SSIG (000)	State Match (000)	SSIG % of State Need-based Grants	Student SSIG Recipients	<-----Institutional Type----> Public 2-Year	Public 4-Year	Priv Non-Prof	Other	<----Family Income----> $0- 19,999	$20,000 -39,999	$40,000 & Over	Average Grant
Alabama	$1,071	$1,140	46.3%	4,668	46.0%	30.8%	9.9%	1.5%	81.4%	17.1%	1.5%	$474
Alaska	$114	$118	24.3%	167	6.6%	58.1%	34.7%	0.6%	63.5%	24.6%	12.0%	$1,391
Arizona	$1,221	$1,221	50.0%	3,521	57.4%	30.6%	4.2%	7.9%	71.9%	24.5%	3.6%	$693
Arkansas	$455	$3,420	7.2%	8,504	10.0%	73.1%	13.9%	1.0%	68.2%	29.8%	2.0%	$457
California	$11,122	$11,191	7.2%	14,082	2.6%	58.3%	36.7%	2.5%	96.7%	2.8%	0.5%	$1,585
Colorado	$988	$1,008	6.2%	2,890	16.7%	76.3%	1.5%	5.5%	68.2%	26.9%	4.9%	$691
Connecticut	$777	$2,135	4.7%	2,747	2.5%	36.8%	60.5%	0.1%	52.1%	22.2%	25.7%	$1,060
Delaware	$192	$345	14.4%	1,072	0.7%	40.7%	58.7%	0.0%	40.6%	33.3%	26.1%	$501
Dist of Col	$524	$545	49.0%	1,157	1.2%	40.6%	57.3%	0.9%	47.3%	36.5%	16.2%	$924
Florida	$2,266	$23,418	7.6%	34,787	38.2%	38.0%	21.9%	1.8%	73.4%	23.5%	3.0%	$738
Georgia	$1,250	$3,794	25.2%	10,950	10.5%	62.9%	16.2%	10.3%	66.2%	29.5%	4.3%	$461
Hawaii	$228	$285	40.8%	888	37.0%	41.0%	22.0%	0.0%	79.1%	19.5%	1.5%	$577
Idaho	$241	$400	32.3%	1,863	9.0%	86.7%	2.5%	1.9%	69.6%	27.2%	3.3%	$344
Illinois	$3,909	$172,891	2.1%	110,118	31.6%	36.6%	31.1%	0.7%	60.0%	28.6%	11.3%	$1,606
Indiana	$1,439	$28,322	2.6%	24,306	5.1%	64.7%	15.9%	14.3%	99.9%	0.1%	0.0%	$1,224
Iowa	$777	$35,418	1.8%	23,547	22.3%	3.1%	68.6%	6.0%	35.1%	48.0%	16.9%	$1,540
Kansas	$797	$5,715	11.6%	4,452	1.2%	19.9%	76.1%	3.3%	39.4%	36.3%	24.3%	$1,463
Kentucky	$879	$915	4.3%	2,597	23.1%	48.1%	28.7%	0.0%	72.9%	25.5%	1.7%	$691
Louisiana	$1,025	$1,025	20.0%	3,584	12.5%	60.5%	5.5%	21.5%	75.3%	20.2%	4.5%	$572
Maine	$259	$4,591	5.0%	8,692	10.2%	63.7%	26.1%	3.2%	64.8%	32.3%	2.9%	$558
Maryland	$1,319	$9,178	6.2%	9,002	20.6%	54.6%	24.8%	0.0%	59.6%	24.9%	15.5%	$1,166
Massachusetts	$2,328	$29,573	5.0%	28,466	20.0%	34.0%	42.8%	3.2%	66.3%	29.8%	3.9%	$1,121
Michigan	$2,960	$4,125	3.8%	5,488	4.2%	76.6%	19.2%	0.0%	23.9%	43.2%	33.0%	$1,291
Minnesota	$1,399	$69,804	1.7%	60,886	38.3%	31.9%	20.8%	9.1%	49.0%	36.9%	14.1%	$1,169
Mississippi	$609	$635	48.9%	1,957	19.3%	56.1%	24.6%	0.0%	66.4%	28.1%	5.5%	$636
Missouri	$1,416	$9,467	12.8%	8,827	3.0%	17.8%	70.7%	8.5%	51.6%	31.8%	16.6%	$1,233
Montana	$199	$220	47.4%	1,282	18.7%	62.1%	14.0%	5.1%	69.1%	27.7%	3.2%	$327
Nebraska	$519	$548	19.8%	3,741	29.1%	33.1%	17.3%	20.5%	77.0%	21.8%	1.2%	$285
Nevada	$197	$205	49.0%	817	32.3%	31.1%	0.6%	36.0%	78.2%	16.9%	4.9%	$492
New Hampshire	$251	$524	20.0%	1,705	14.5%	48.3%	35.2%	2.0%	64.8%	29.9%	5.3%	$454
New Jersey	$1,897	$33,439	1.6%	19,079	25.8%	54.8%	19.5%	0.0%	84.8%	15.1%	0.1%	$1,852
New Mexico	$365	$5,618	4.1%	8,499	49.3%	45.9%	4.8%	0.0%	79.5%	18.4%	2.1%	$704
New York	$6,119	$7,507	1.1%	5,637	0.0%	27.0%	73.0%	0.0%	100.0%	0.0%	0.0%	$2,417
North Carolina	$1,530	$1,564	36.1%	3,770	27.8%	52.3%	19.9%	0.0%	90.8%	8.9%	0.3%	$821
North Dakota	$193	$1,825	8.9%	3,560	17.2%	61.8%	19.5%	1.5%	56.7%	38.8%	4.4%	$567
Ohio	$2,853	$50,674	4.3%	69,659	29.1%	48.1%	15.9%	6.9%	100.0%	0.0%	0.0%	$768
Oklahoma	$969	$13,902	6.5%	18,765	25.3%	64.8%	7.5%	2.5%	100.0%	0.0%	0.0%	$792
Oregon	$924	$11,019	7.3%	15,633	43.2%	46.7%	10.1%	0.0%	79.1%	19.7%	1.2%	$764
Pennsylvania	$3,181	$3,212	1.8%	2,833	0.0%	29.4%	66.4%	4.2%	100.0%	0.0%	0.0%	$2,257
Puerto Rico	$641	$18,629	2.9%	68,234	5.7%	42.7%	45.3%	6.3%	87.6%	11.9%	0.4%	$282
Rhode Island	$380	$9,356	4.0%	14,545	20.0%	37.8%	34.8%	7.4%	50.4%	27.7%	21.9%	$669
South Carolina	$777	$9,951	4.6%	4,921	0.1%	0.1%	99.8%	0.0%	49.8%	42.8%	7.4%	$2,180
South Dakota	$204	$383	34.8%	1,922	0.0%	38.7%	54.1%	7.2%	55.9%	34.0%	10.1%	$305
Tennessee	$1,171	$13,099	8.5%	19,388	22.9%	54.7%	18.1%	4.3%	75.2%	23.3%	1.5%	$736
Texas	$3,948	$5,448	11.9%	7,765	26.8%	30.6%	42.6%	0.0%	59.1%	38.7%	2.2%	$1,210
Utah	$535	$585	48.0%	2,568	30.7%	62.7%	1.4%	5.1%	71.7%	22.3%	6.0%	$436
Vermont	$182	$6,754	1.6%	3,982	5.0%	32.5%	56.7%	5.8%	50.6%	41.6%	7.8%	$1,742
Virginia	$1,533	$4,302	21.1%	7,111	22.7%	57.0%	20.2%	0.0%	55.3%	37.0%	7.7%	$821
Washington	$1,643	$13,000	5.5%	13,718	52.5%	34.8%	12.8%	0.0%	85.2%	13.9%	0.9%	$1,067
West Virginia	$525	$554	8.9%	774	0.0%	82.6%	17.4%	0.0%	76.6%	22.6%	0.8%	$1,395
Wisconsin	$1,501	$3,388	3.4%	4,989	30.5%	44.8%	24.7%	0.0%	84.0%	14.9%	1.1%	$980
Wyoming	$110	$110	50.0%	598	90.8%	9.2%	0.0%	0.0%	90.3%	9.2%	0.5%	$367
Other*	$38	$27		154								$422
Total	$71,950	$636,596	3.6%	684,867	24.2%	42.8%	28.6%	4.4%	72.2%	21.6%	6.2%	$1,035

* Includes: American Samoa, Guam, Northern Marianas, Trust Territory, Virgin Islands.

Nearly all of these states created programs at funding levels that just reached the 50:50 match criteria to qualify for federal SSIG funds.

Nearly all of the SSIG programs at the state level are grant programs. However, within the structure of the statute, three states use their SSIG funding to operate work-study programs. These states are **Iowa, Rhode Island** and **Washington.** These numbers are small, however.

There were 678,000 SSIG grant recipients, compared to 6,600 SSIG work-study recipients in 1992.

Administration Proposals to Stop Funding SSIG

According to Davis:

> *Since the late 1970s, the federal Executive branch's annual budgets have proposed reducing or rescinding appropriations to the State Student Incentive Grant Program (SSIG). These proposals are invariably accompanied by assertions that the SSIG program has achieved its goals of providing incentives to states to implement, maintain, and expand need-based comprehensive grant programs for postsecondary students and, therefore, is no longer needed. It is argued that, because all states years ago implemented need-based grant programs and because aggregate state grant expenditures increase each year, the relatively modest annual amounts spent on the SSIG have no real effect on how much support states give their grant programs.*

Davis has carefully analyzed state behaviors--program creation, funding levels, changes in funding in response to changes in federal SSIG funding--on a year-by-year, state-by-state basis--and he has reached somewhat different conclusions.

- **The SSIG contributed to the establishment of state grant programs.** In the first four years of federal funding for SSIG, all 22 states that did not have state need-based grant programs created and funded them.
- **Nearly all of the states with the largest state need-based grant programs today had created them before the first year of federal funding for SSIG. Nearly all of the smallest state need-based grant programs today created their programs in the first four years of federal SSIG funding.** Only two of the 25 states with the largest state grant programs today--**Kentucky** and **Oklahoma**--were created after SSIG funding. And six states of the 26 states with the smallest state grant programs had state grant programs before initial SSIG funding: **Delaware, Kansas, Maine, North Dakota, Rhode Island** and **West Virginia**.
- **Once states had created state need-based grant programs, the annual increases in college attendance costs within states drove increased state appropriations more than did increases in federal SSIG funding.** Federal funding grew sharply between 1974-75 and 1979-80, but fluctuated between $59 million and $76 million per year after that. Many states continued to increase state funding for their state need-based grant programs, however, because real college attendance costs continued to increase.
- **Changes in federal SSIG funding do not appear to affect state funding for need-based grant programs in the 25 states with the largest programs. However, in the 26 states with the smallest and newest grant programs, changes in federal SSIG funding directly influenced state funding.** When federal SSIG funding increased, the probability of state funding increase was about 22 percent in the 26 states with the smallest state grant programs. When federal SSIG funding decreased, the probability of state funding decreases increased by about 14 percent in these states.
- **In the states with the smallest state grant programs, SSIG represents a substantial share of the state grant program dollars awarded to students.** While SSIG funding comprised 13 percent of state grant program expenditures in the largest states, they comprised 37 percent in the smallest states.

Our Opinion

We agree with the position of the National Association of State Scholarship and Grant Programs that the State Student Incentive Grant Program should be funded at its authorized level of $105 million. Our view is based on two main points.

First, SSIG is clearly targeted on students from the lowest family income levels. Unlike the rest of federal student financial aid programs, which have moved steadily toward students from middle income family backgrounds ever since Congress passed the Middle Income Student Assistance Act in 1978, over 70 percent of the students who receive SSIG grants come from families with incomes in the bottom quartile of the family income distribution. The erosion of the purchasing power of the Pell Grant maximum award that is targeted on this low income population makes any program that attempts to aid these students even more important. That every federal SSIG dollar is able to leverage nine more from the states speaks to the effectiveness of the leveraging principle of SSIG.

Second, for the last 15 years, the responsibility for paying for higher education has been shifted from taxpayers generally to students (and their parents). Clearly not all students and their families are equally positioned to absorb greater costs of higher education. Governments at all levels and in all states have reduced the allocation of social resources invested in young people through higher education. Institutions have raised charges to students to offset this loss of government support. But only students from the top quartile of family income can afford these higher costs. Given the tenuous commitment of many states with smaller state grant programs to meeting the financial needs of students who cannot attend college without financial aid, the SSIG keeps many of these states positioned to help their students finance the higher educations from which substantial public benefits result.

Earnings by Educational Attainment, Gender, Race/Ethnicity and State, 1989

The economic incentive to pursue higher education is at the top of many freshmen lists of reasons for attending college. And students perceive the economic value of higher education quite correctly: on average a bachelor's degree adds about $466,000 to one's lifetime income over that of a high school diploma.

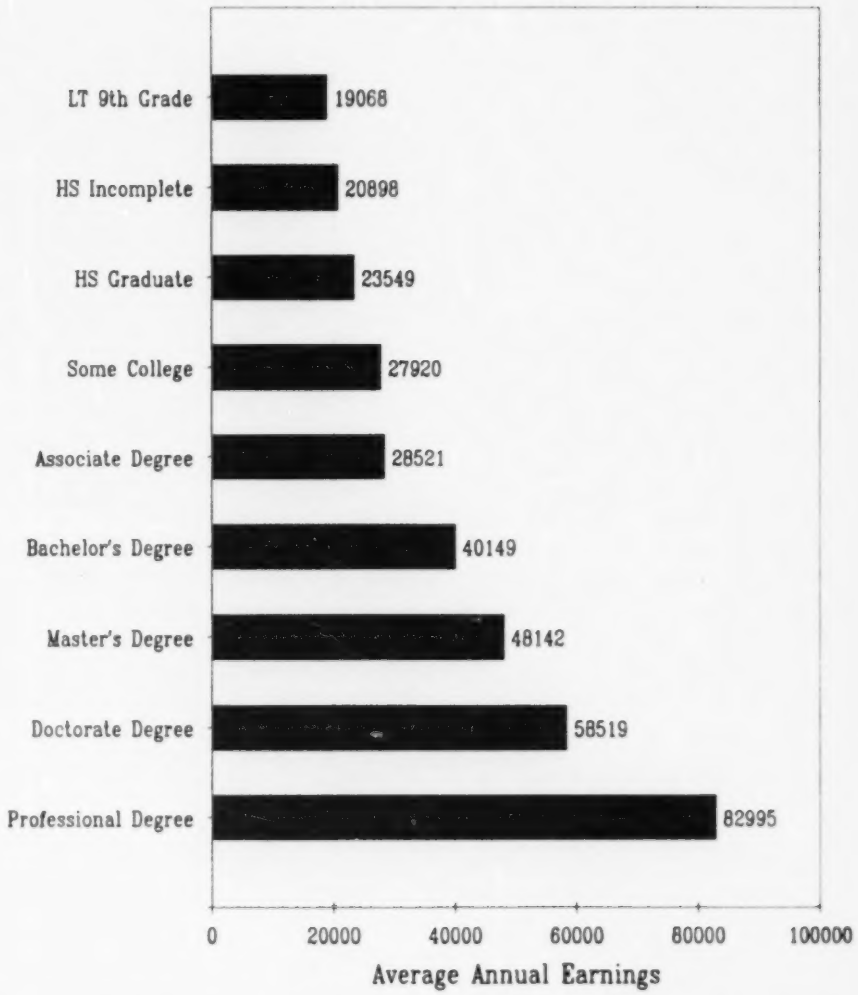
The above "average" obscures important differences in the value of higher education that occur across genders, racial/ethnic groups, and--now--states too. The 1990 Census offers a rare opportunity to examine annual earnings data for adults from different population groups, living in different places, at different levels of educational attainment.

We thank Dr. Robert Kominski, Chief of the Education and Social Stratification Branch, for sharing with us a telephone-size volume of state-specific education data from the 1990 Census. We highlight here data on earnings of year round full time workers by educational attainment and state for different racial/ethnic groups from that report.

U.S. Bureau of the Census, 1990 Census of Population, 1990 CP-3-4. *Education in the United States*. U.S. Government Printing Office, Washington, DC, January 1994.

State data are not available on an annual basis from the Census Bureau's **Current Population Survey** due to sampling size limitations. However, the decennial census offers an opportunity to collect wonderfully detailed data on not only educational attainment by state, but educational attainment by gender and/or race/ethnicity by state. Here we focus on one aspect of the state data collected in the 1990 Census: average annual earnings for civilians 18 and over who worked year round full time in 1989.

Average Annual Earnings by Educational Attainment for Civilians 18 and Over Who Worked Year Round Full Time in 1989



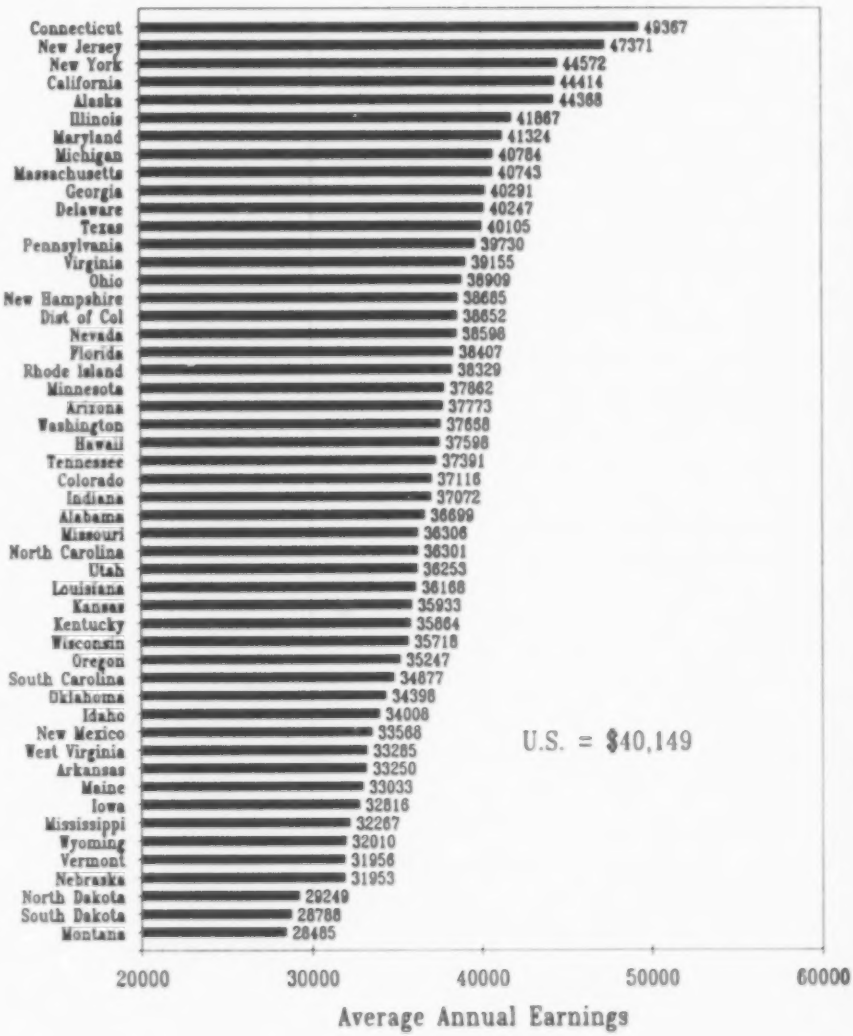
These data offer valuable information to those who work in outreach programs to vulnerable populations not well served by higher education. The message is loud and clear: <u>regardless of gender or race/ethnicity, in every state higher levels of educational attainment lead to higher levels of income.</u> If young people discount

national data on the relationship between educational attainment and income (meaning private welfare), or discount data for the other gender or another racial/ethnic group saying that it does not apply to them, these data provide state, gender, and race/ethnicity specific measures that will tell them unequivocally that indeed educational attainment will largely determine at what standard of living they will live their adult lives.

In this report we have analyzed some of the income data for civilians age 18 and over recently reported by the Census Bureau from the 1990 Census. These data are available for all 50 states and the District of Columbia, for males and females, and for whites, blacks, American Indian/Eskimo/Aleut, Asian/Pacific Islander, Hispanic origin, and white but not of Hispanic origin. The chart on average annual earnings by educational attainment that appears on the previous page can be prepared for any of these groupings of the population of civilians age 18 and over for any state. Our presentation of data here reflects only a very narrow set of summaries of the published data.

The data presented here were selected to help illustrate the economic value of education to the lives of individuals regardless of their location, gender, or race/ethnicity. College freshmen consistently report that they are motivated to attend college by its economic value to them personally: to get a better job or to make more money, according to *The American Freshman: National Norms for Fall 1993* conducted by the Higher Education Research Institute at UCLA. Economic reasons are not the only reasons freshmen enroll in college, but they are certainly among the most important. And since educational loans have become such an important part of the means by which many students finance their higher educations, public policy must respect students' economic motivations and choices.

Average Annual Earnings of Civilians 18 and Over with Bachelor's Degree Who Worked Year Round Full Time in 1989



Average Annual Earnings by Educational Attainment

The first chart reflects the common finding that higher levels of educational attainment lead, on average, to higher levels of annual earnings and hence higher living standards. These average annual earnings are for civilians age 18 and over who worked year round and full time during 1989.

On average a high school graduate earned about $23,500, while a person with an associate degree earned about $28,500, a person with a bachelor's degree earned about $40,100, and so on up to a person with a professional degree who earned an average of $83,000 in for year round full time work in 1989. These data are shown on page 11.

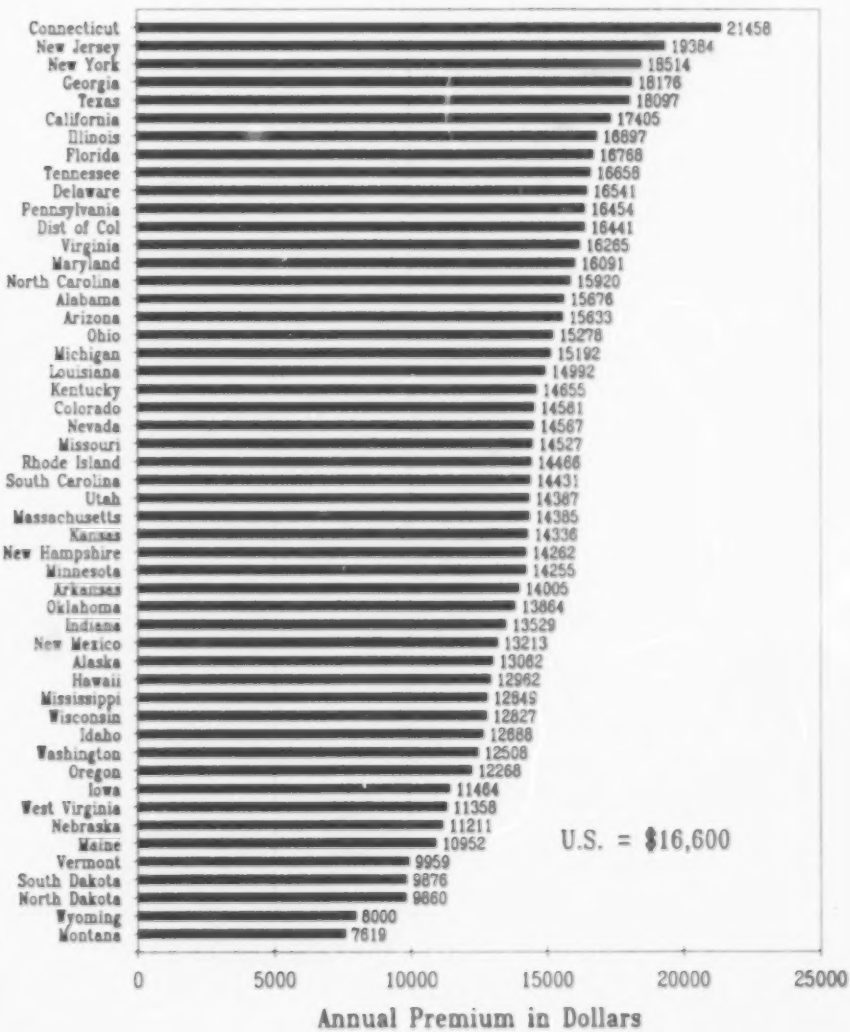
The earnings of bachelor's degree recipients ranged widely across the states, as shown in the chart on page 12. The average annual earnings for a bachelor's degree holder for the United States were $40,149 in 1989. But the range was from $49,367 in **Connecticut** to $28,485 in **Montana**. Generally the larger industrial states offered the highest income (and highest cost of living) to bachelor degree holders, and the least populous northern great plains states offered the lowest incomes.

Bachelor's Degree Premium

Different states clearly have different labor markets for college graduates. On average for the United States, a person with a bachelor's degree earned $16,600 more than did another person who was a high school graduate.

However, across states the premium paid a bachelor's degree holder over a high school graduate varied by a factor of three, from $21,458 in **Connecticut** to $7619 in **Montana**. This pattern too appears to be related to state population size and urbanization.

Bachelor's Degree Premium Over High School Diploma
1989



Earnings by Gender

In 1989 the average annual earnings for a male with a bachelor's degree were $46,637, compared to $28,480 for a female. Women at this level earned about 62 percent of what men earned. Women earned between 62 and 68 percent of what men made at the same level of educational attainment from those with less than ninth grade educations through the master's degree.

Beyond the master's degree, the pattern diverged. Women with doctorates earned 71 percent of what men earned--the narrowest gap of any level of educational attainment. However, women with professional postbaccalaureate degrees earned just 49 percent of what men earned.

These incomes were both for year round full time employment, so the differences cannot be attributed to the usual labor force participation differences. More likely they are related to occupational and age differences and perhaps other factors. But they are also clearly related to differences within states.

The premium paid males with bachelor's degrees over similarly educated females ranged from $25,441 in **Connecticut** to $10,824 in the **District of Columbia**.

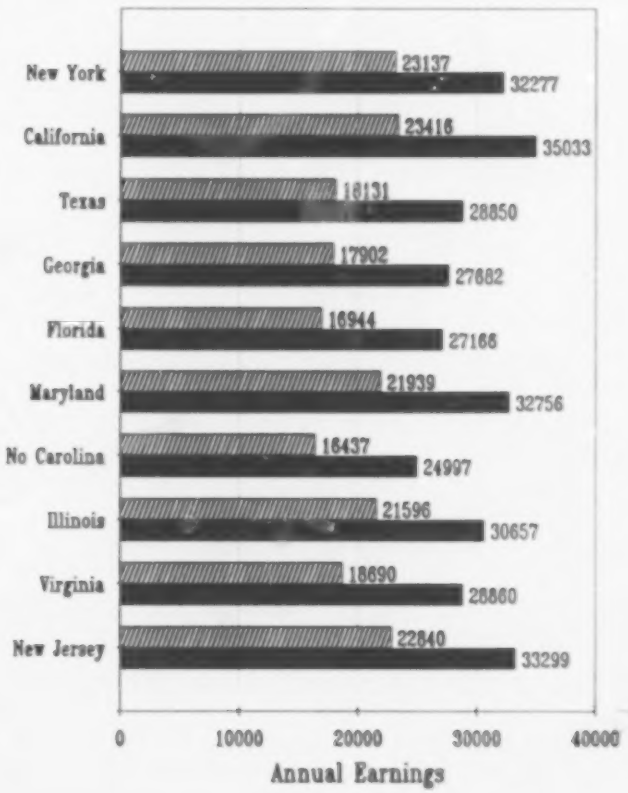
These differences appear to reflect more the differences paid males across states than to differences between females in different states. Average male earnings in 1989 had a range of about $26,000--from $58,416 in **Connecticut** to $32,388 in **Montana**. Average female earnings had a range of about $14,000--from $33,617 in the **District of Columbia** to $19,665 in **South Dakota**.

Earnings by Race/Ethnicity

The 1990 Census report on which this report is based includes for each state average annual earnings for men and women in the following racial/ethnic categories: total, white, black, American Indian/Eskimo/Aleut, Asian/ Pacific Islander, Hispanic origin, and white/not of Hispanic origin. Here we report the earnings for those with high school diplomas and those with baccalaureate degrees in the ten largest states for blacks, American Indians, Asians and Hispanics.

Blacks: In 1989 the ten states holding the largest numbers of blacks had 61 percent of the black population. These ten states are ranked in the following chart by their population. For the United States, the average annual earnings of blacks who worked full time year round averaged $19,720 for high school graduates and 29,951 for those with bachelor's degrees. Among these ten states high school graduates earned from $16,437 in North Carolina to $23,416 in California, while those with bachelor's degrees earned from $24,997 in North Carolina to $35,033 in California.

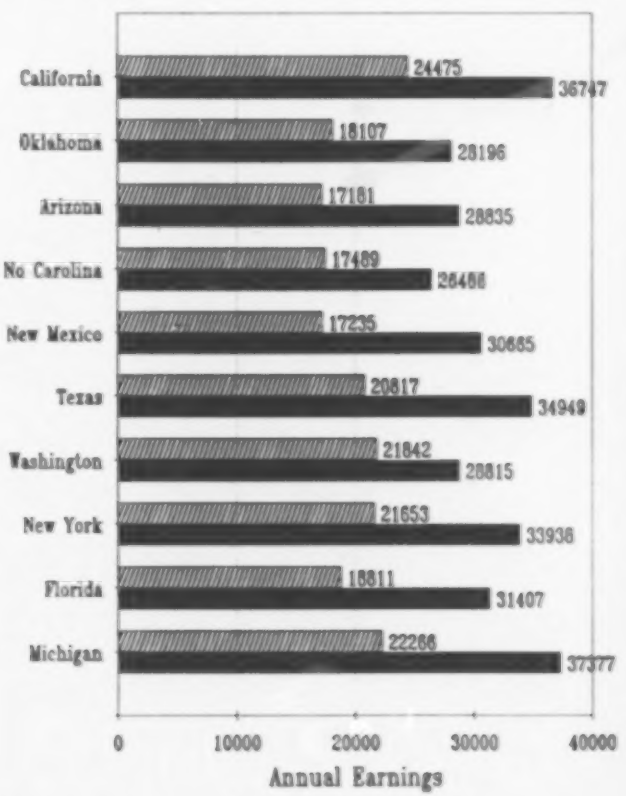
Earnings for Black High School Graduates and Bachelor's Degree Holders Who Worked Full Time Year Round in Ten States with Largest Black Populations, 1989



American Indians: In 1989 the ten states with the largest numbers of American Indians had 62 percent of the total Indian population. These ten states are ranked in the following chart by the size of their Indian populations.

For the United States, the average annual earnings for an Indian who worked full time year round were $20,215 for those with high school diplomas and $31,740 for those with bachelor's degrees. Among the ten states listed below, average annual earnings for Indian high school graduates ranged from $17,181 in Arizona to $24,475 in California. For Indians with bachelor's degrees, the range was from $26,488 in North Carolina to $37,377 in Michigan.

Earnings for American Indian High School Graduates and Bachelor's Degree Holders Who Worked Full Time Year Round in Ten States with Largest Indian Populations, 1989

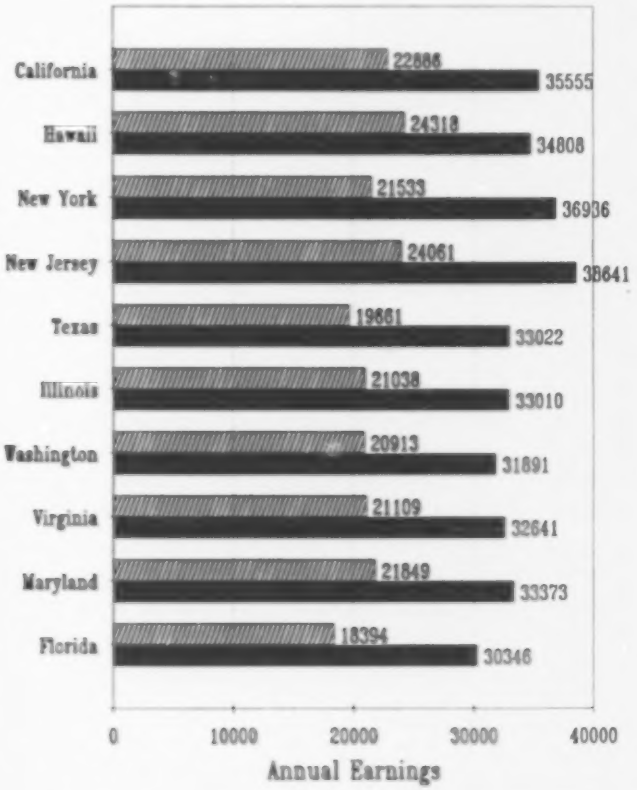


Asians: In 1989 the ten states with the largest numbers of Asians or Pacific Islanders had 82 percent of the population of those who worked full time year round. These tend states are ranked in the following chart by the size of their Asian populations.

The average annual earnings for Asians who worked year round full time and had a high school diploma was $22,105 in

1989, compared to $34,865 for those with a bachelor's degree. Among the ten states with the largest Asian populations, the earnings of those with a high school diploma ranged from $18,394 for those living in Florida to $24,318 for Asians living in Hawaii. Among those with bachelor's degrees, average annual earnings ranged from $30,346 for those in Florida to $38,641 for those living in New Jersey.

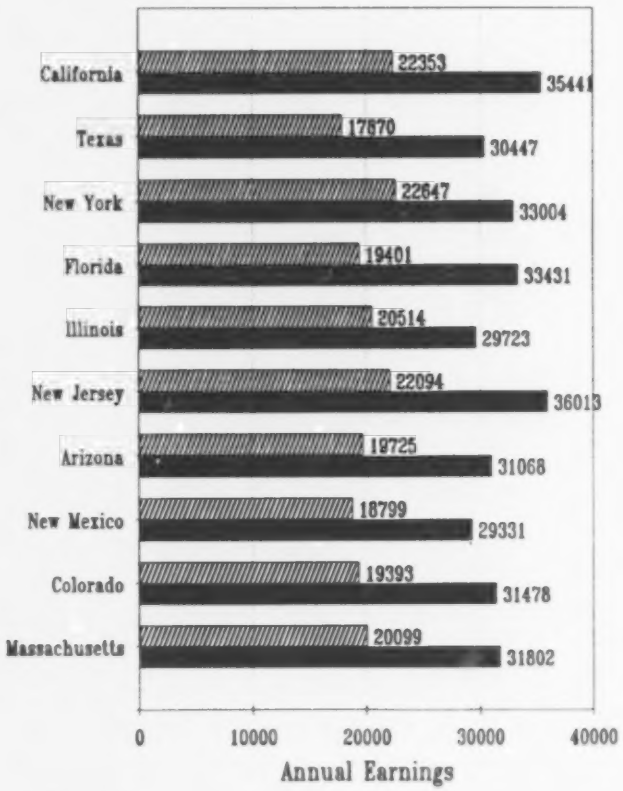
Earnings for Asian High School Graduates and Bachelor's Degree Holders Who Worked Full Time Year Round in Ten States with Largest Asian Populations, 1989



Hispanics: Hispanics are the most geographically concentrated of the racial/ethnic minority groups reported here. In 1989 87 percent of those who worked full time year round lived in ten states that are ranked according to population in the following chart.

For the United States, average annual earnings for Hispanics with high school diplomas who worked full time year round was $20,666 in 1989, compared to $33,155 for those with bachelor's degrees. Among the top ten states, earnings for Hispanic high school graduates ranged from $17,870 in Texas to $22,647 in New York. For Hispanics with bachelor's degrees, average annual earnings in 1989 ranged from $29,331 in New Mexico to $36,013 in New Jersey.

Earnings for Hispanic High School Graduates and Bachelor's Degree Holders Who Worked Full Time Year Round in Ten States with Largest Hispanic Populations, 1989



Summary

The 1990 Census provides confirming evidence of the importance of higher educational opportunity and attainment to private economic welfare. For each gender, for all racial/ethnic classifications, and every one of the 50 states, greater levels of educational attainment lead to higher incomes and the higher standards of living that greater incomes provide access to. There are no exceptions, for anyone, anywhere.

Because this presentation has been limited to persons who worked full time year round, it understates by a substantial margin the economic benefits of higher levels of educational attainment. Among those who worked in 1989, the proportion working full time year round also rose with attainment. Only about 46 percent of those who had not completed high school worked full time year round, compared to 58 percent of the high school graduates, 63 percent of those with a baccalaureate degree, and about 69 percent of those with professional or doctorate degrees. This factor would magnify the differences reported in this analysis if they had been applied to all populations studied.

Distribution of Student Aid Funds To The Poor Sparks Controversy

Many college and university administrators, beset by a shortage of dollars and students, are disagreeing over who should benefit from financial aid to students.

The problem was summarized thus by one speaker at last week's annual meeting of the College Entrance Examination Board: "How do you distribute shrinking financial aid? Do you maximize it to large numbers through many small awards, or do you give large grants to a smaller number of very needy students?"

One of the main questions asked at the meeting was, "Who is the loser, the middle- or lower-income student?" Another was, "Is one group benefitting at the expense of the other?"

Many proposals and programs have tried to find more money for poorer students in the pockets of middle-income ones by increasing tuition or restricting eligibility for aid, said Rep. James G. O'Hara (D-Mich), chairman of the special subcommittee on education of the House of Representatives and keynote speaker at the College Board meeting.

There is a current proposition in educational and economic circles, he charged, "that if we are to achieve equality of access to higher education, if we are to lower the financial barriers to higher education for the very poor, we must necessarily raise the financial barriers for those who are from families of average means."

One the other hand, a paper drawn up by Ralph Alvarez, director of financial aid at California State University at Sacramento, warned that "there cannot help but be a nagging apprehension that somehow the ethnic-minority, economically disadvantaged applicant will wind up the victim."

Aid programs seeking to broaden the base of financial aid and give at least some money to all who need it, he suggested, are not able to provide adequate sums for the very poor.

While the money may not be going to the middle classes, it nevertheless isn't helping the poorer ones, he said.

- *Chronicle of Higher Education*, November 5, 1973

* * * * *

As the preceding article from the *Chronicle* more than two decades ago indicates, we have not escaped the harsh laws of economics in allocating higher educational opportunity. Choices are to be made because resources are always limited. Congress tries to tailor economics to politics. But it does not work that way. Politics can be tailored to economics, as wise politicians understand everywhere, but not the reverse.

The choices about allocation of limited resources have been made--to shift available financial aid resources up the income scale since 1978 when Congress passed the Middle Income Student Assistance Act. The consequences have been played out since 1979 in the redistribution of higher education opportunity, with devastating and entirely predictable consequences for the most vulnerable populations. -TGM

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Postsecondary Education
OPPORTUNITY

The Mortenson Research Letter on Public Policy Analysis of Opportunity for Postsecondary Education

Number 24 **Iowa City, Iowa** **June 1994**

Every Year . . . *. . . More Unequal*

Family Income Differences Influence Educational Opportunity at Every Step Toward Bachelor's Degree

The huge and growing disparity between the objectives and performance of government student financial aid policy can no longer be ignored. Program performance has been failing with respect to its intended objectives since 1979.

At every level of education, family income backgrounds of young people influence how likely they are to successfully complete the level they are at and move on to the next level of education. These differences across levels of family income in the rate at which young people participate in the educational system are:

- ☹ ***Huge**, at every level of educational participation,*
- ☹ ***Persistent**, across the last twenty five years of available data,*
- ☹ ***Growing**, wider over time, and*
- ☹ ***Wider now than at any time in the past.***

Here we examine school enrollment data collected through last October in the **Current Population Survey** by the Census Bureau to see, once again, how young people born into different circumstances of family income are faring as they move through the secondary and higher education systems. The results are a continuation of trends that have been in place since 1979. Almost none of this is new, and that by itself is an especially sad reflection on the people who make public policy, design programs, fund them, and oversee their performance. The programs are not working, and nothing is being done to rectify the disastrous trajectory we are now on.

Estimated Chances for a Baccalaureate Degree
by Age 24 by Family Income Quartile
1970 to 1993

Data used here come largely from the Census Bureau's Current Population Survey, except as noted where estimates are used to supplement CPS

data. The data for 1993 were very recently shared with **OPPORTUNITY** on a pre-publication basis, and for that we thank the Education and Social Stratification Branch of the Population Division at the Census Bureau.

Federal Policy Objectives

From its origins in the War on Poverty in the mid-1960s, federal policy toward higher education has been focused on those with financial need to attend college. The Higher Education Act of 1965 created the Educational Opportunity Grant Program to encourage colleges and universities to seek out and enroll students from low family income backgrounds with needs-tested student financial aid. Subsequent reauthorizations have reaffirmed and renewed this commitment to assisting students with financial need to pay their college attendance costs with need-tested grants, loans and work-study.

The February 1992 report of the House Committee on Education and Labor on the 1992 Higher Education Amendments noted as basic policy objectives:

The need for this legislation arises primarily from the expiration at the end of fiscal year 1992 of the authorizations for the programs in the Higher Education Act. Thus, the fundamental purpose of this bill is to affirm and improve the Federal commitment to the support of postsecondary education. The reason for this Federal commitment to education was eloquently stated by President Johnson in his message proposing the Higher Education Act twenty-six years ago. He said, speaking of education:

> *Nothing matters more to the future of our country: Not our military preparedness--for armed might is worthless if we lack the brain power to build a world of peace; not our productive economy--for we cannot sustain growth without trained manpower; not our democratic system of government--for freedom is fragile if citizens are ignorant.*

A fundamental theme of Federal support for postsecondary education is assistance to achieve the goal of equal educational opportunity. This is not a new goal. It was stated as long ago as 1947 by the President's Commission on Higher Education, created by President Truman. That Commission's report stated:

> *Equal education opportunity for all persons, to the maximum of their individual abilities and without regard to economic status, race, creed, sex, and national origin, or ancestry is a major goal of American democracy. Only an informed, thoughtful, tolerant people can maintain and develop a free society.*

President Eisenhower's Committee on Education Beyond the High School stated as one of its 'basic premises' that:

> *Our ideals and the increasing complexity of our civilization require that each individual, regardless of race, creed, color or national origin, have the opportunity to pursue education or training beyond high school to the full extent for which he or she is willing and able.*

This goal was reaffirmed in President Johnson's message to the Congress, 'Towards Full Educational Opportunity,' which proposed the Higher Education Act of 1965, and in his remarks at Southwest Texas State College upon signing the Higher Education Act of 1965. At the signing ceremony, President Johnson said that this law 'means that a high school senior anywhere in this great land of ours can apply to any college or any university in any of the 50 States and not be turned away because his family is poor.'

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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement
This research letter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this research letter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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President Nixon expressed his strong commitment to equal educational opportunity in his 1970 message to the Congress in higher education in which he said, 'No qualified student who wants to go to college should be barred by lack of money. That has long been a great American goal: I propose that we achieve it now.'

The student assistance programs have increasingly become the dominant means by which the federal government pursues the goal of equal educational opportunity. Perhaps the most dramatic change in the Higher Education Act over the last twenty-six years has been the shift from an Act which primarily supported higher education through the purchase of things, such as buildings and books, to an Act which supports higher education primarily by investing in people through the student aid programs. The 1965 Act provided for total authorizations of almost $1.1 billion for the first fiscal year fiscal year 1966. Of this total authorization, 68 percent of the funds were authorized for institutional aid programs and the remaining 32 percent for student aid. The largest single authorization in the 1965 Act was $460 million for grants to build undergraduate academic facilities.

Currently, the fiscal year 1992 appropriations for programs authorized by the Higher Education Act is $15.3 billion. Of these funds 97 percent are for the student assistance programs authorized by Title IV and only the remaining 3 percent are for the other programs authorized by the Act. In fact, the student financial assistance program authorized by Title IV provide 75 percent of the student financial assistance from all sources in the United States. The watershed in the reorientation of the Higher Education Act from the dominance of institutional aid programs to the dominance of student aid programs was the Education Amendments of 1972 which created the Pell Grant program.

The most consistent message received from the Subcommittee's hearings was to note the erosion in the value of student aid when compared to college costs, the disproportionate decline in the purchasing power of grant assistance and the dramatic increase in student borrowing. In constant dollars, between 1980-81 and 1990-91 the value of Title IV financial assistance increased by 23 percent. During this same period increases in college costs ranged from 27 percent for public universities to 54 percent for private universities and median family income increased by only 15 percent. The purpose of the Federal student financial aid programs is to fund that part of college costs that cannot be met out of family income and thereby expand educational opportunities. These Federal programs are clearly diminishing in their ability to serve that purpose as college costs have grown at a rate significantly faster than both median family income and Federal student financial assistance. The gap between family resources and college costs is steadily widening and the ability of the Federal student financial assistance programs to fill that gap and enable students to pursue education beyond high school is also steadily eroding. It is, therefore, not surprising that in a recent Gallup poll 87 percent of the public agreed with the statement, 'College costs are rising at a rate which will put college out of the reach of most people' and 73 percent agreed with the statement, 'College costs in general are such that most people cannot afford to pay for a college education.'

Of particular significance is the fact that in fiscal year 1979 the maximum Pell Grant award represented 46 percent of the average cost of attendance at all postsecondary institutions in the United States. In the current academic year, the maximum Pell Grant award provided only 25 percent of the average cost of attendance. In short, the purchasing power of the Pell Grant has declined by one-half.

As the value of grants has declined, students are increasing their borrowing in order to finance their education. In the current academic year, $18.4 billion will be available to students through Federal programs. Of this amount 64 percent will be in the form of loans and 36 percent in the form of grants and work-opportunities. In the late 1970's this proportion was exactly the opposite. Looking only at the Pell Grant and the Stafford Loan programs, for academic year 1976-77 the Pell Grant provided slightly more aid to students that the Stafford Loan program. For the 1990-91 academic year the Stafford Loan program provided more than two and one half times as much aid as the Pell Grant program. So, rather than a little more than one grant dollar for each loan dollar as in 1976-77, we are now providing two and a half loans dollars for every grant dollar. What is particularly disturbing is that the lowest income students are being increasingly forced to borrow to pay for postsecondary education.

State Policy Objectives

All states have established state programs of need-tested grants for undergraduates students, many as a result of the federal State Student Incentive Grant Program. These statutes often contain declarations of purpose that specify state intent. **Pennsylvania**'s 1966 law is a good example:

> *Although the enrollments of postsecondary institutions of higher learning of this Commonwealth and throughout the nation continue to increase at a rapid pace, and although larger numbers of the Commonwealth's children*

graduate from both public and nonpublic secondary schools each year, there continues to be a tragic underdevelopment of the Commonwealth's human talent because of the inability of many needy students to finance a postsecondary education program. The Commonwealth of Pennsylvania can achieve its full economic and social potential only if every individual has the opportunity to contribute to the full extent of his capabilities and only when the financial barriers to his economic, social, and educational goals are removed. It is therefore the policy of the Legislature and the purpose of this act to establish a broad-scale State scholarship program designed to guarantee that the most able students from all sectors of the Commonwealth, the most needy students and students with the capability to successfully complete postsecondary educational programs, and deserving postsecondary students are given the opportunity to continue their program of self-improvement in an institution of higher learning of their choice.

Performance Versus Promise

Data collected by the Census Bureau in the Current Population Survey provide an extraordinarily valuable and unique tool with which to examine the distribution of educational opportunity for young people across levels of family income from 1970 through 1993. Our approach is to disaggregate educational attainment (through the baccalaureate degree at age 24) into three components: high school graduation, college continuation, and 4-year college completion by age 24. We also divide the population of unmarried 18 to 24 year old high school graduates into four quartiles of family income. For 1993 these quartiles were:

Q1	below $21,258
Q2	$21,258 to $38,735
Q3	$38,735 to $63,806
Q4	above $63,806

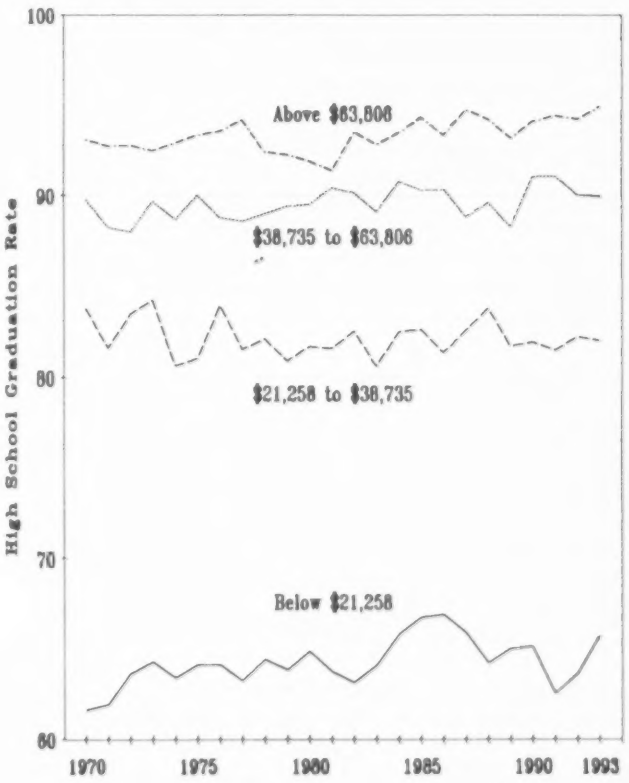
That is to say, one-quarter of all unmarried 18 to 24 year old high school graduates came from families earning less than $21,258, another quarter came from families earning from $21,258 to $38,735, and so on.

By this measure median family income for all unmarried 18 to 24 year old high school graduates was $38,735 in 1993, compared to $38,820 in 1992 and $38,268 in 1991. Middle income is defined by convention (established by Michael McPherson) as the two middle income quartiles, ranging from $21,258 to $63,806. We call the bottom quartile poor and the top quartile affluent. In constant dollars, the top quartile has become more affluent since 1970 while the bottom quartile has become poorer.

High School Graduation

The first step of the three steps to a baccalaureate degree is high school graduation. Here we examine the rate of high school graduation among unmarried 18 to 24 year olds stratified by family income quartiles for the years 1970 through 1993.

High School Graduation Rates by Family Income Quartiles for Unmarried 18 to 24 Year Olds 1970 to 1993



In 1993 81.5 percent of the unmarried 18 to 24 year olds were high school graduates, compared to 80.6 percent in 1992. Across quartiles of family income, high school graduation rates were 94.9 percent in the top quartile, 90.0 percent in the third quartile, 82.0 percent in the second quartile, and 65.7 percent in the bottom quartile in 1993.

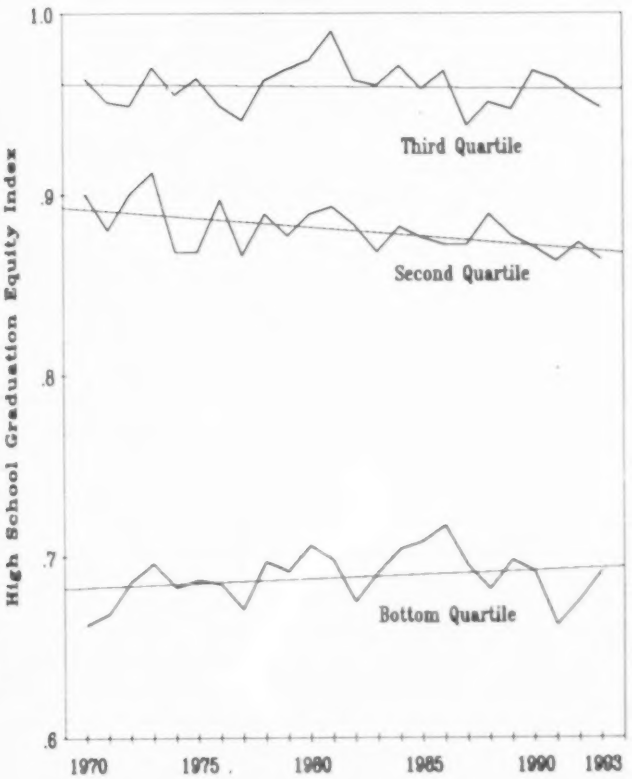
As the above chart makes clear, high school graduation rates by family income quartile have changed little over the last twenty-four years. In each and every year high school graduation rates have been highest in the top quartile, lowest in the bottom quartile, with the two middle income quartiles ranked between the extremes. Never once has the lowest rate of high school graduation for one family income quartile fallen below the highest rate for the quartile below it. The differences in high school graduation rates by family income quartiles over time are huge and persistent.

The stability of these high school graduation rates over time is emphasized when we construct a High School Graduation Rate Equity Index from the data in the previous chart. Using the high school graduation rate for the group from the top quartile of family income as the reference population toward which all other groups would move to achieve equality, we construct the Index by dividing the high school graduation rate for each lower quartile by the rate for the top quartile.

For example, in 1993 when the high school graduation rate for the top quartile was 94.89 percent and the rate for the third quartile was 89.99 percent, the High School Graduation Rate Equity Index for the third quartile was .948. Expressed another way, a student from the third quartile was 94.8 percent as likely as a student from the top quartile to be a high school graduate in 1993. The corresponding Indices were .864 for the second quartile, and .692 for the bottom quartile.

The High School Graduation Rate Indices for the first through third quartiles (compared to the top quartile) are shown in the following chart. We have also plotted a trend line through the 24 years of available Census Bureau data to emphasize the trend over annual fluctuations. The trends are largely flat, with a slight downward slope to the trend line for the second quartile and a slight upward slope to the trend line for the bottom quartile. Compared to the equity index charts that follow, these trend lines are truly flat. Over the last 24 years virtually no progress has been made closing the huge differences in high school graduation rates across family income levels.

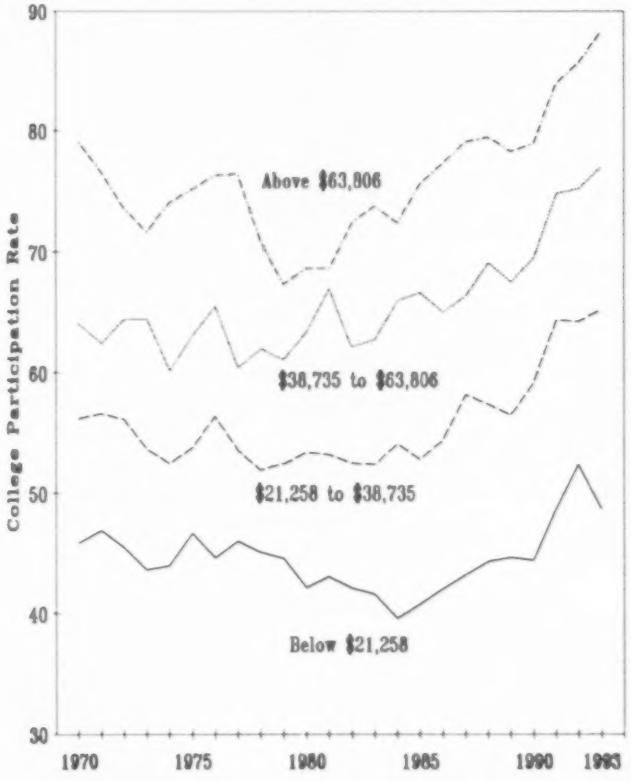
High School Graduation Equity Index by Family Income Quartiles 1970 to 1993



College Participation

The second step toward a baccalaureate degree is college enrollment for those who graduate from high school. Here we examine the rate at which unmarried 18 to 24 year old high school graduates participate in college.

College Participation Rates by Family Income Quartiles for Unmarried 18 to 24 Year Old High School Graduates 1970 to 1993

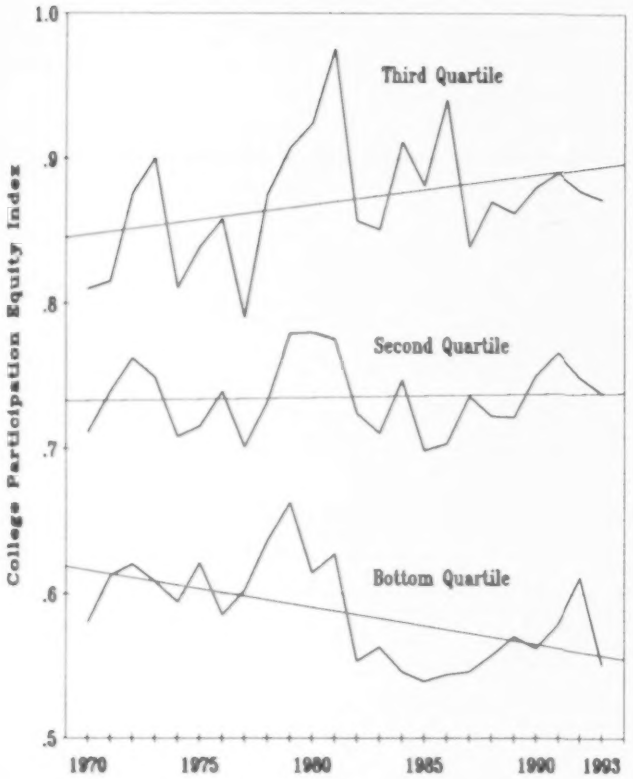


In 1993 69.8 percent of the unmarried 18 to 24 year old high school graduates had enrolled in college, compared to 69.4 percent in 1992, 67.9 percent in 1991 and 62.9 percent in 1990. In 1993 the college participation rate was 48.7 percent in the bottom quartile of family income, 65.2 percent in the second quartile, 77.1 percent in the third quartile, and 88.4

percent in the top family income quartile. Compared to 1992, the college participation rates increased in the top three family income quartiles, but dropped in the bottom quartile.

The large differences across quartiles of family income evident in the high school graduation rate chart carry over to college participation rates as well. Once again, the differences in college participation rates are huge and persistent, and they magnify disparities that are carried over from high school graduation.

College Participation Equity Index
by Family Income Quartiles
1970 to 1993



The College Participation Rate Equity Index for the bottom through third quartiles of family income are constructed by comparing the college participation rates in the three bottom family income quartiles to the rate for the top quartile. These indices are shown in the above chart.

The charts also show the trend line in the College Participation Equity Index through the 24 years of available data. Here trends appear more distinct across family income quartiles. For example the College Participation Equity Index for the third quartile was .872 in 1993, meaning that they were 87 percent as likely as a student from the top quartile to participate in college between 18 and 24 years. The comparable Indices were .738 for the second quartile and .551 for the bottom quartile. The trend over 24 years is toward greater equality in the third family income quartile, no change in the second quartile, and toward greater inequality in the bottom quartile.

Four-Year College Completion

The third step toward a baccalaureate degree is the completion of four years of college by age 24 for those who started college. These data are estimated, in ways explained below, that are should not be treated as reliable as are the data reported previously for high school graduation and college participation.

The estimation of four-year college completion by age 24 for those who start college involves two sets of data. The first set is the CPS data on college participation. These data consist of three sub-groups: those currently enrolled in college, others who have completed one to three years of college and are no longer enrolled, and those who have completed four years of college and are no longer enrolled. We use this last part of the participation rate data to calculate college completion rates.

The second source of data is the 1980 High School and Beyond data file. This file was analyzed to determine *for the 1980 high school graduate cohort* the proportion of those who started college from each family income quartile in 1980 that had completed four years or more of college by 1986 when the cohort would have been about 24 years old.

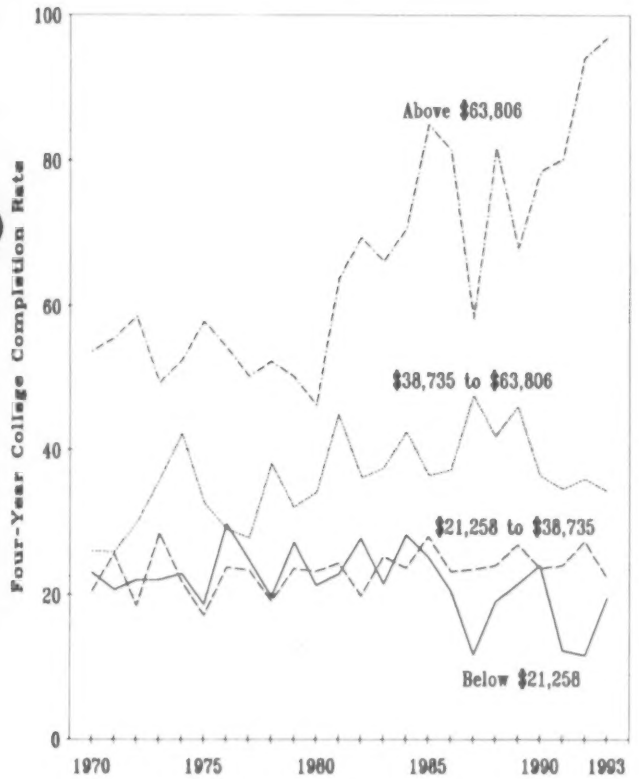
The proportion of each CPS cohort having completed four years or more of college and no longer enrolled in college is used to project a four-year college completion rate for that cohort based on the 1980 HSB experience. The main limitation of this estimation technique is that the farther we are from 1980 the less reliable this projection technique becomes. In particular this projection technique assumes that in 1993 college graduates were as likely to remain dependent family members as were students in 1980 at each quartile of family income. This may be more true in some family income quartiles than in others, e.g. the top family income quartile. Any such change will skew the following results.

While it is impossible at this time to verify this assumption, or correct for any known differences in family retention behavior of college graduates, there is some solid independent evidence that four-year college completion behavior has deteriorated for some groups of low income students and increased for other groups of higher income students. Four-year college completion rates for whites ages 25 to 29 years have edged upward since 1980 while they have dropped

sharply for blacks. There is also evidence from the UCLA Freshman Survey that students from lower income backgrounds have shifted their enrollments from four-year to two-year colleges, and that students from above median family incomes have shifted their enrollments to four-year colleges and universities.

While the accuracy of the data reported here are suspect, the general disparities they portray and the trends in recent years are quite likely to reflect actual experience of college students in completing four years of college by age 24.

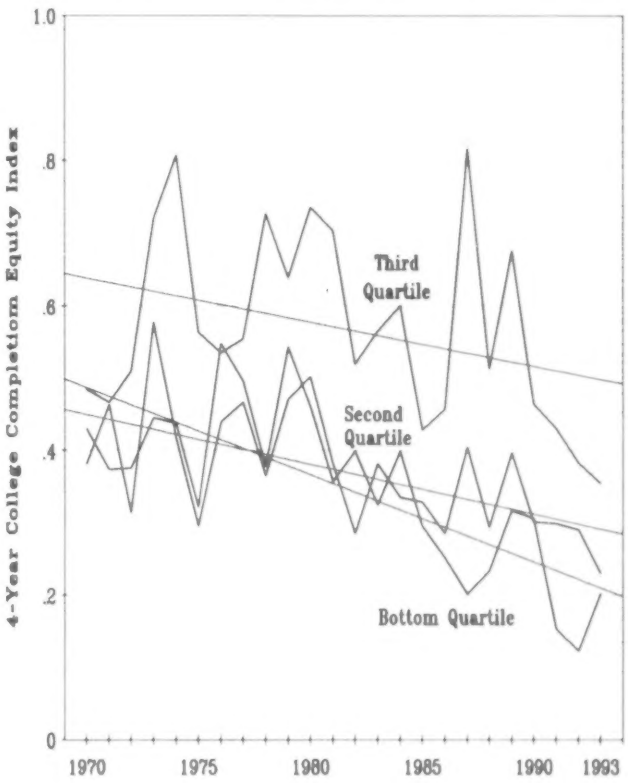
Estimated Four-Year College Completion Rates by Age 24
by Family Income Quartiles for Unmarried College Students
1970 to 1993



In 1993 the estimated four-year college completion rates by age 24 for unmarried college students were 19.5 percent in the bottom quartile of family income, 22.3 percent in the second quartile, 34.3 percent in the third quartile, and 96.9 percent in the top quartile. As with high school graduation and college participation, the differences across levels of family income in four-year college completion are huge, they are persistent, and they are generally wider than they have ever been in the past.

When we construct the Four-Year College Completion Equity Index, the redistribution of success in college completion becomes more apparent. Here the four-year college completion rates in the bottom three family income quartiles are divided by the four-year college completion rate for the top quartile to calculate indices. The results are plotted below.

Four-Year College Completion Equity Index
by Family Income Quartiles
1970 to 1993



The results are striking: in all three of the lowest family income quartiles, four-year college completion rates compared to the top quartile are well below 1.0 (signifying equity) and dropping sharply.

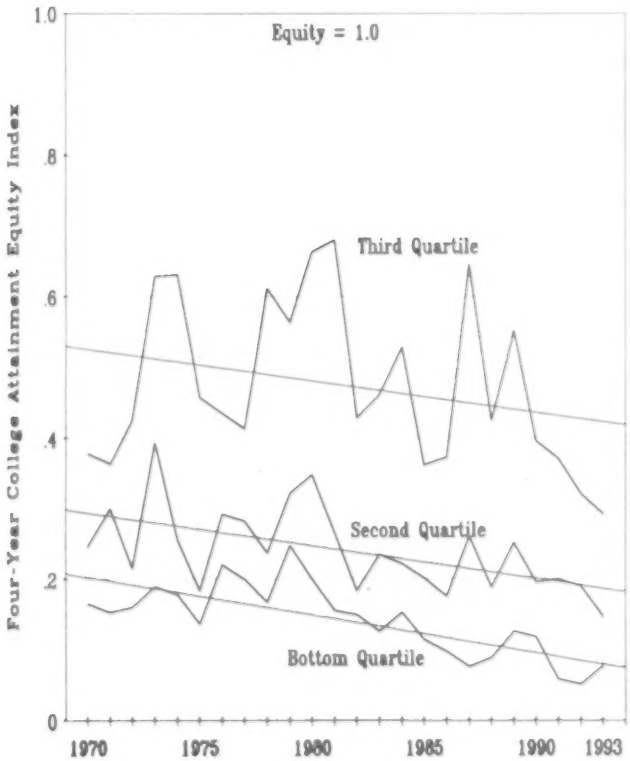
In all three quartiles, the actual equity index score has been below the trend line for at least the last three years. In the bottom two quartiles this reflects the success of the top quartile. In the third quartile, however, the deterioration in the equity index also reflects an apparent substantial deterioration in four-year college completion rates from 1990 through 1993.

Four-Year College Attainment

To earn a baccalaureate degree one must graduate from high school, enroll in college and complete four years of college. The mathematical product of the high school graduation rate, times the college participation rate for those who have graduated from high school, times the four-year college completion rate for those who have entered college is the proportion of the 24 year old population that has attained four years of college education by age 24.

The four-year college attainment rate is plotted for each family income quartile for each year between 1970 and 1993 on the first page of this research letter. The differences in high school graduation, college participation and four-year college completion across quartiles of family income are magnified when it comes to the attainment of a baccalaureate degree. In the lowest quartile of family income 6.23 percent of the 24 year olds are estimated to have obtained a baccalaureate degree (.6570 high school graduation rate x .4865 college participation rate x .1950 four-year college graduation rate). In contrast a student from the top quartile of family income had a thirteen times greater chance of earning a bachelor's degree by age 24. In 1993 81.20 percent of this quartile passed all three hurdles (.9489 high school graduation rate x .8835 college participation rate x .9685 four-year college completion rate by age 24). More so than in times past, it helps to be born into an affluent family when it comes to attaining a baccalaureate degree by age 24.

Four-Year College Attainment Equity Index
for Family Income Quartiles
1970 to 1993



The Four-Year College Attainment Equity Index is plotted in the following chart. The index is calculated by dividing the four-year college attainment rates at the first through third quartiles of family income by the rate for the top quartile of family income. We have plotted not only the indices in the following chart, but the trend line for each quartile as well. The results are unmistakable: compared to the top quartile of family income, there is growing inequality across the bottom three quartiles of family income.

This growing inequality is largely the result of the success of the top family income quartile in high school graduation, college participation and four-year college completion. The top quartile--the only income group able to attend a four-year college without financial aid--appears to be responding directly, exclusively and appropriately to the large and growing returns to a baccalaureate education compared to lesser levels of educational attainment. Not only are students from these family income levels most likely to come from families with college educated parents, but they are also most likely to have taken college preparatory curricula in high school. From lower levels of family income, students are less likely to have college educated parents and to have taken college preparatory courses in high school. In addition, they are dependent on a student financial aid system that has been failing to reduce costs of attending college as intended for nearly the last 15 years.

Summary and Conclusions

This analysis highlights the disparities in the distribution of higher educational opportunity that have been developing since 1979. The disparities across levels of family income are huge, they are persistent, they are growing, and they are generally wider now than they have been at any time in the past.

When contrasted with the public policy objectives of equalizing higher educational opportunity, the performance of the programs created and funded to achieve these objectives must be seriously questioned. Since 1979 equality has deteriorated sharply in the bottom quartile of family income. Since 1980 equality has deteriorated in the second quartile of family income. Since 1989 equality has deteriorated in the third quartile of family income. The programs created to equalize higher educational opportunity are not achieving their objectives at current levels of public funding.

25 Year Slide . . . *. . . Where Will It End?*

State Colleges and Universities Share of State Government Expenditures Declined Further in 1992

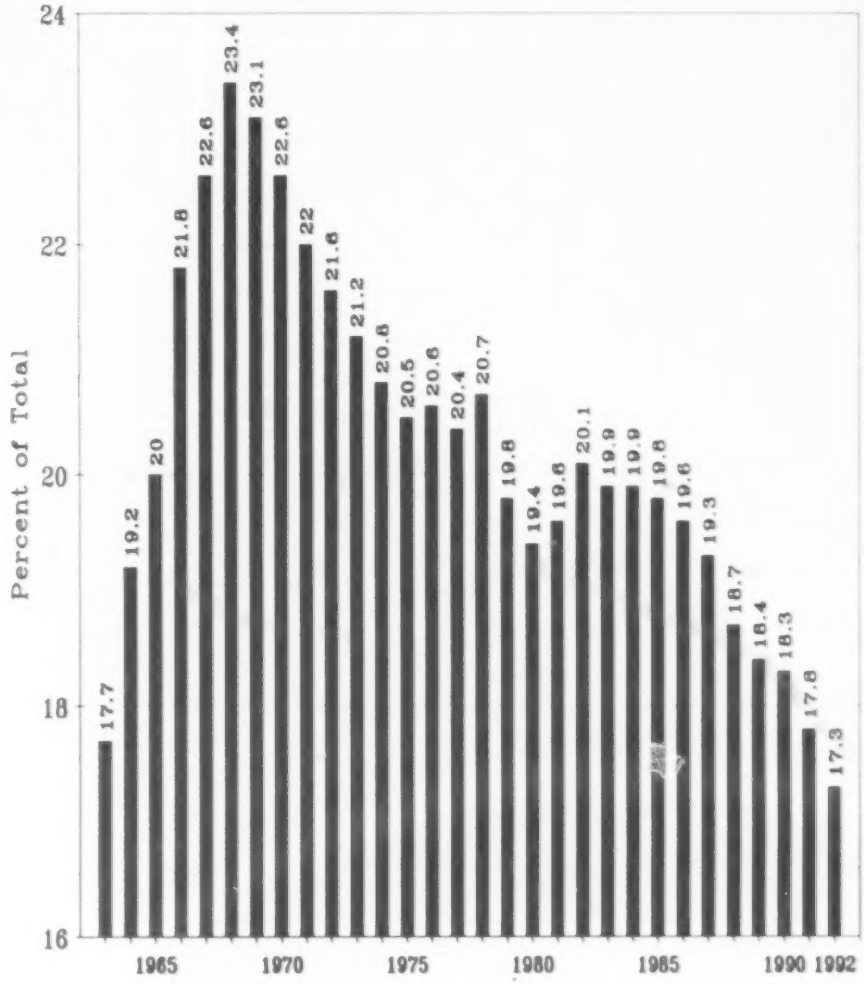
The share of direct state government expenditures that were spent on state colleges and universities declined again in FY1992 to 17.3 percent, from 17.8 percent in FY1991 and 18.3 percent in FY1990.

- *This decline continues a trend begun after FY1968 when state higher education's share of state government expenditures reached a peak of 23.4 percent.*
- *The FY1992 share was the lowest on record, surpassing the previous low of 17.7 percent in FY1963 when the Census Bureau data on state government finances were first reported in the current format.*

The analysis of state fiscal data reported here is critical to understanding issues of financing higher educational opportunity for young people. The deterioration in state support for higher education has consequences for opportunity issues such as the capacity, quality and affordability of higher education. The burden of this retrenchment is experienced disproportionately by vulnerable populations such as students from low income, minority and first generation family backgrounds that higher education has had trouble serving in the past.

This analysis of state government financing of public institutions was first reported in the initial issue of **OPPORTUNITY** in March 1992. Helpful comments on that initial report have led us to extend and refine the earlier analysis of the Census Bureau data. Our refinement not only confirms the original findings, but extends our analysis to the role of state tax appropriations and institutional charges in financing the educational mission of state institutions of higher education.

Public Institutions of Higher Educations' Share of Direct General Expenditures of State Governments Fiscal Years 1963 to 1992



Data used in this analysis are collected and published by the Census Bureau in its governmental finances series.

U.S. Bureau of the Census. *State Government Finances: 1992*, Series GF/92-3. U.S. Government Printing Office, Washington, DC, 1993.

Total Expenditures

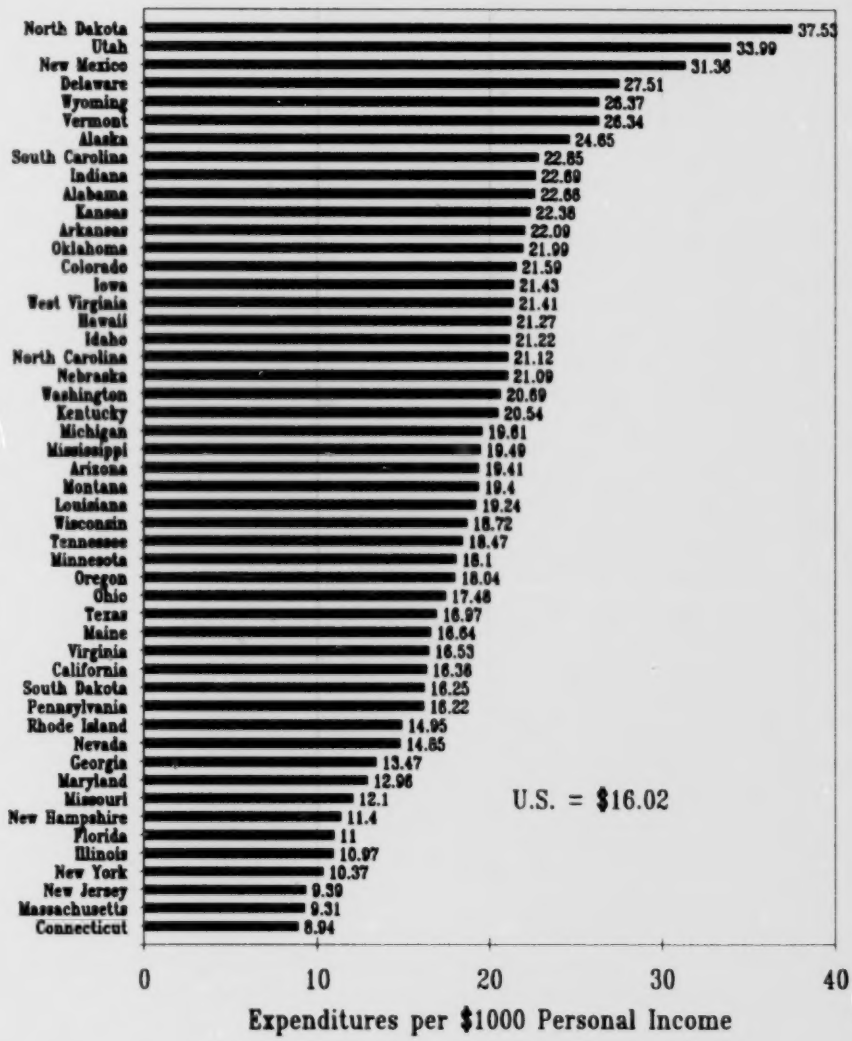
In FY1992 total state expenditures for state institutions of higher education were $77,105 million.

Current operation	$62,696
Auxiliary enterprises	$7,673
Other	$55,023
Capital outlay	$8,208
Direct General Expenditures	$70,904
Intergovernmental Transfers	$6,201
TOTAL EXPENDITURES	$77,105

The direct general expenditures for state institutions of higher education as a proportion of all state direct general expenditures is plotted in the chart on the previous page. This excludes intergovernmental transfer payments, explained below. This was 17.3 percent, down from a peak of 23.4 percent reached in 1968 as post-World War II babies were flooding colleges and universities. Since the peak was reached in 1968, higher education's share of state expenditures has been displaced largely by welfare and corrections in state budgets.

Total expenditures per $1000 of personal income for state institutions of higher education, including all of the components in the above table, is shown for each state in the chart to the right. Total expenditures were $16.02 per $1000 of personal income in 1992. The range was from $8.94 in **Connecticut** to $37.53 in **North Dakota**.

State Government Expenditures for Public Higher Education per $1000 of Personal Income, 1992



Between 1984 and 1992 total expenditures per $1000 of personal income increased by $.12. However, there was an enormous range across states. Expenditures went down in 27 states. The largest reductions occurred in **Alaska** (-$9.86), **Georgia** (-$3.06), **South Dakota** (-$2.70), **Iowa** (-$2.66), **Arizona** (-$2.62), **Minnesota** (-$2.59), **Wisconsin** (-$2.18), and **Texas** (-$2.05). The states with the largest increases between 1984 and 1992 were **North Dakota** ($9.10), **Pennsylvania** ($8.35, reportedly the result of reclassifying some previously private institutions as state universities, e.g. Temple University), **Arkansas** ($5.50), **Kansas** ($4.60), and **West Virginia** ($3.42).

Intergovernmental transfers are state funds passed through to locally administered community colleges. This occurred in 1992 in 26 states only, and 44 percent of the total occurred in **California** alone. Other states with large intergovernmental transfers in higher education were **Florida** with 12 percent of the total, **Texas** with 9 percent, **North Carolina** with 7 percent, **New York** with 5 percent, and **Illinois** with 4 percent.

In the following analysis we set aside expenditures for intergovernmental transfers, auxiliary enterprises and capital outlay. Auxiliary enterprises includes dormitories, dining halls,

bookstores, and athletic events, but excludes public hospitals, agricultural experiment stations and extension services that are reported elsewhere in the Census Bureau report.

We also set aside capital outlay which is usually financed by debt, although revenues from bond sales are not included as state government (or higher education) revenues.

Given these exclusions from our analysis, we are left with "other" state direct general expenditures that define the core educational function of public institutions of higher education. We will return to this point momentarily after first introducing state higher education institutions' revenues.

Revenues of State Higher Education

In FY1992 the revenues of state institutions of higher education were as follows, in millions:

Current charges	$28,424
Auxiliary enterprises	$8,703
Other	$19,731
Intergovernmental Transfers	$10,355*
TOTAL REVENUES	$38,779*

*estimated

Unfortunately, the Census Bureau lumps all intergovernmental transfers from the federal government for education into a single number. Thus, higher education and elementary /secondary education cannot be distinguished in these data. The data are taken by the Census Bureau from the HEGIS/IPEDS institutional survey, and thus referral to original documents should provide these data.

But unfortunately, again, the National Center for Education Statistics *still has not released the 1991-92 HEGIS/IPEDS financial statistics*, reportedly due to editing delays. The most recent data released by NCES is now nearly three years old.

State Tax Support

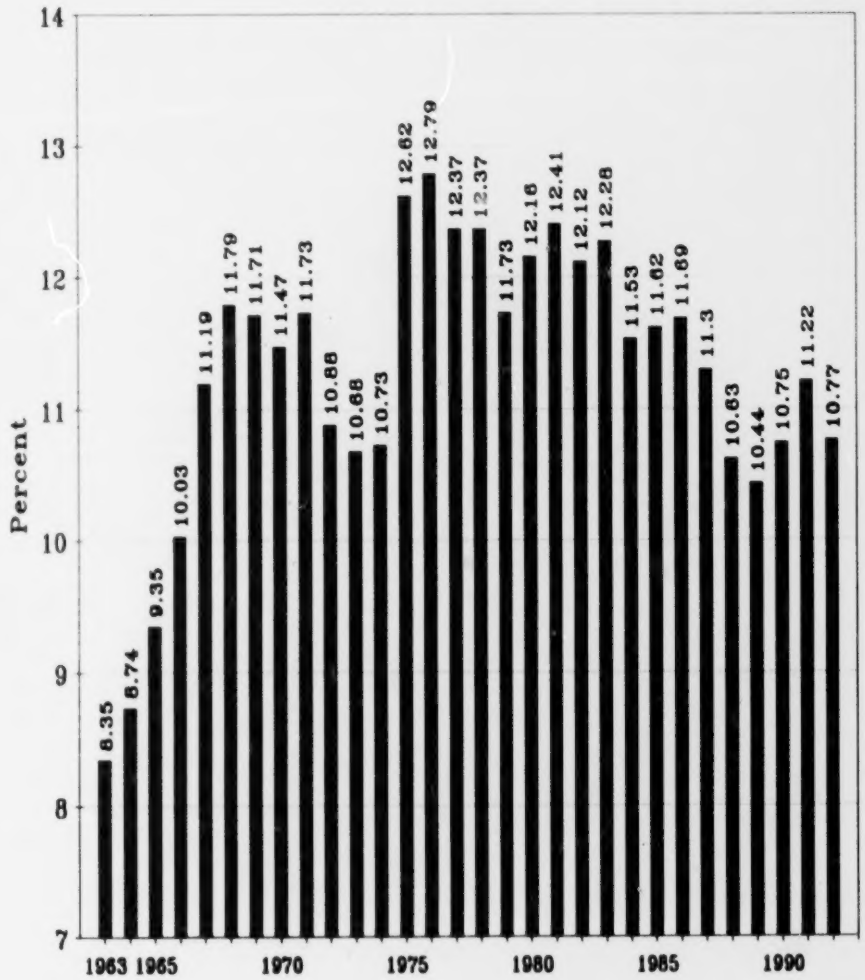
We may estimate the proportion of state tax revenues appropriated to public institutions of higher education for the years 1963 through 1992 from the Census Bureau data. Our formula--involving our exclusionary assumptions--is as follows:

(Current operations expenditures - Auxiliary enterprises - Institutional charges) / State tax revenues

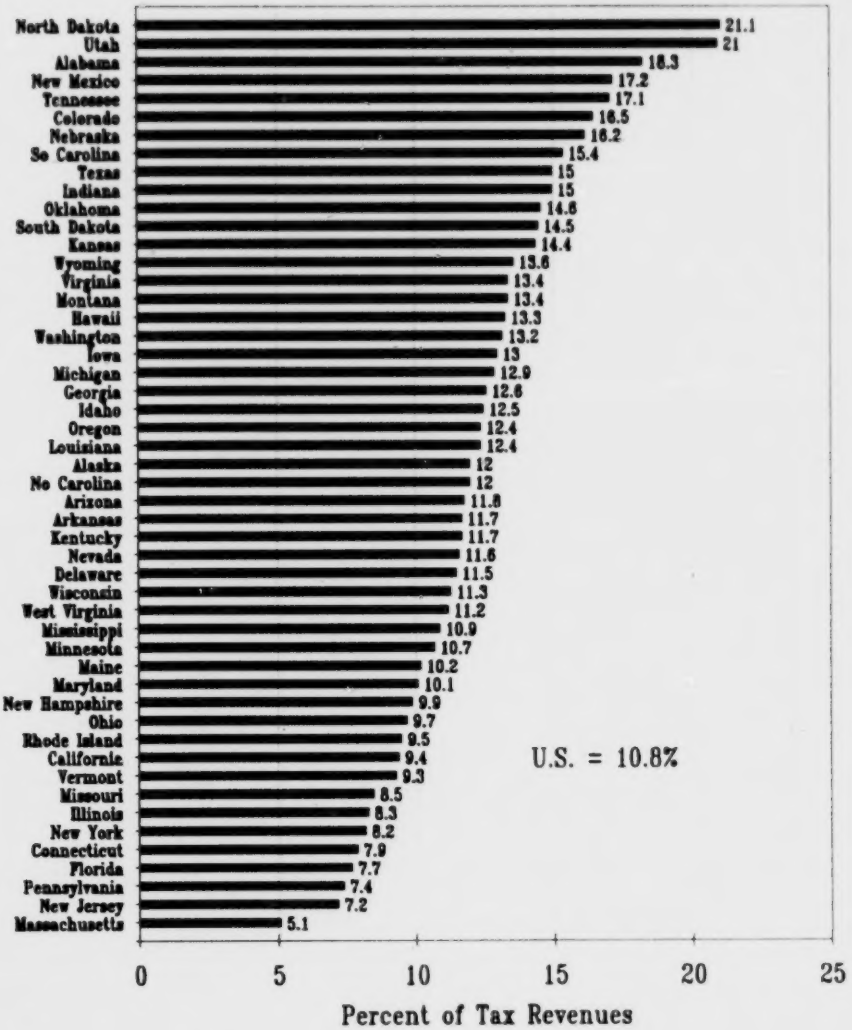
In 1992 10.77 percent of state tax revenues went for the operation of state institutions of higher education. This was roughly similar to the share of state tax revenues provided for the last five years, since 1988. However, this was well below the share provided between 1975 and 1983 when state institutions of higher education averaged 12.32 percent of state tax revenues.

In 1992 state institutions of higher

Proportion of State Tax Revenues for Operation of Public Higher Education Institutions 1963 to 1992



State Tax Revenues for Operation of State Colleges and Universities, FY1992



education received about $35.3 billion in state tax revenues for operations. If they had received the average share of state tax revenues that they received for 1975 to 1983 they would have received $40.4 billion.

The proportion of state tax revenues provided for direct current operating expenditures of state colleges and universities is shown in the above chart for 1992. The proportion ranges from 5.1 percent in **Hawaii** to 21.1 percent in **North Dakota**.

Obviously there are many factors that enter into this measure of state tax support for higher education. These may include, depending on the state, the proportion of students enrolled in private colleges and universities, the proportion of enrollments from out-of-state and hence paying non-resident tuition charges, the general stinginess or generosity of the state in its tax effort and allocation priorities, and--apparently--scale.

Institutional Charges

The second largest source of revenues for state colleges and universities is tuition and fee charges to students. In 1992 35.9 percent of the current operating revenues of state higher education institutions were derived from student charges.

The 1993 share is by far the largest share of state institutions' operating revenues for any year over the last three decades. With the exception of four apparently anomalous years in the early 1970s, between 1963 and 1981 institutional charges averaged 23.9 percent.

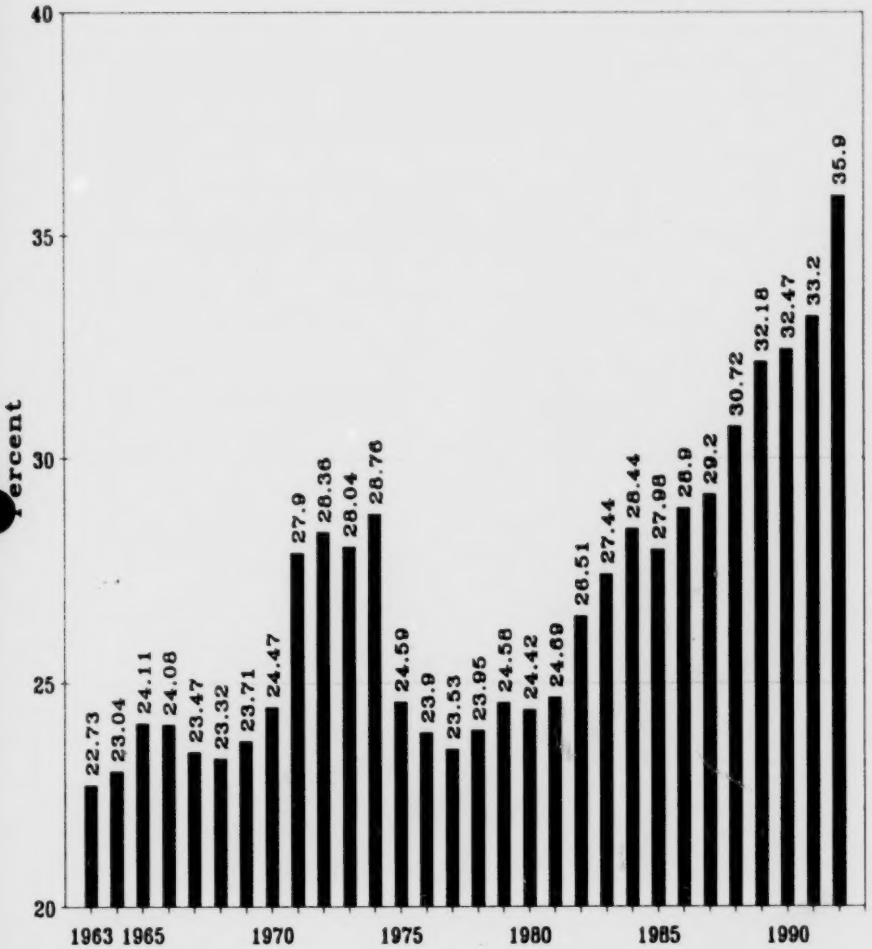
Then, very suddenly in FY1982 (decisions made 1981), institutional charges started their very rapid rise. From 1982 through 1992 the average annual increase was 1.0 percent. The largest increase of all, however, was the most recent: between 1991 and 1992 institutional charges as a percent of operating budgets increased a whopping 2.70 percent.

OPPORTUNITY has reported on this phenomenon often in the past. The decrease in state tax resources allocated to higher education forces institutions to raise tuition and other charges to students to preserve capacity and quality in educational services offered to students.

What this chart illustrates reasonably clearly is the shift in responsibility for financing higher education, from taxpayers generally to students (and their parents) in particular. Since 1981 the willingness (not ability) of Americans to invest in the country's future through the higher education of American youth has diminished considerably.

The very high and growing private rates of return to a higher education

Proportion of Current Operations Expenditures Covered by Institutional Charges in Public Higher Education Institutions 1963 to 1992



investment decision are used to rationalize this shift. In fact a bachelor's degree adds on average about $466,000 to one's lifetime income over the lifetime earnings of a person with only a high school diploma (see **OPPORTUNITY** #16). For those who can afford to pay more for their higher educations, the costs are clearly small compared to the benefits.

Moreover, the earnings advantage of college educated males over high school educated males has been widening almost continuously for the last forty years. In 1950 median annual incomes of male college graduates were 13 percent greater than those for high school graduates. By 1961 the advantage was 28 percent, by 1971 it was 27 percent, by 1981 it was 34 percent, by 1990 it was 47 percent, and by 1992 it was 60 percent (see **OPPORTUNITY** #18). This pattern is also true for high school graduates over high school drop-outs. Neither trend shows any sign of letting up.

Institutional charges as a proportion of current operating budgets can also be calculated by state from the Census Bureau data. The data for 1992 are shown in the chart on the following page.

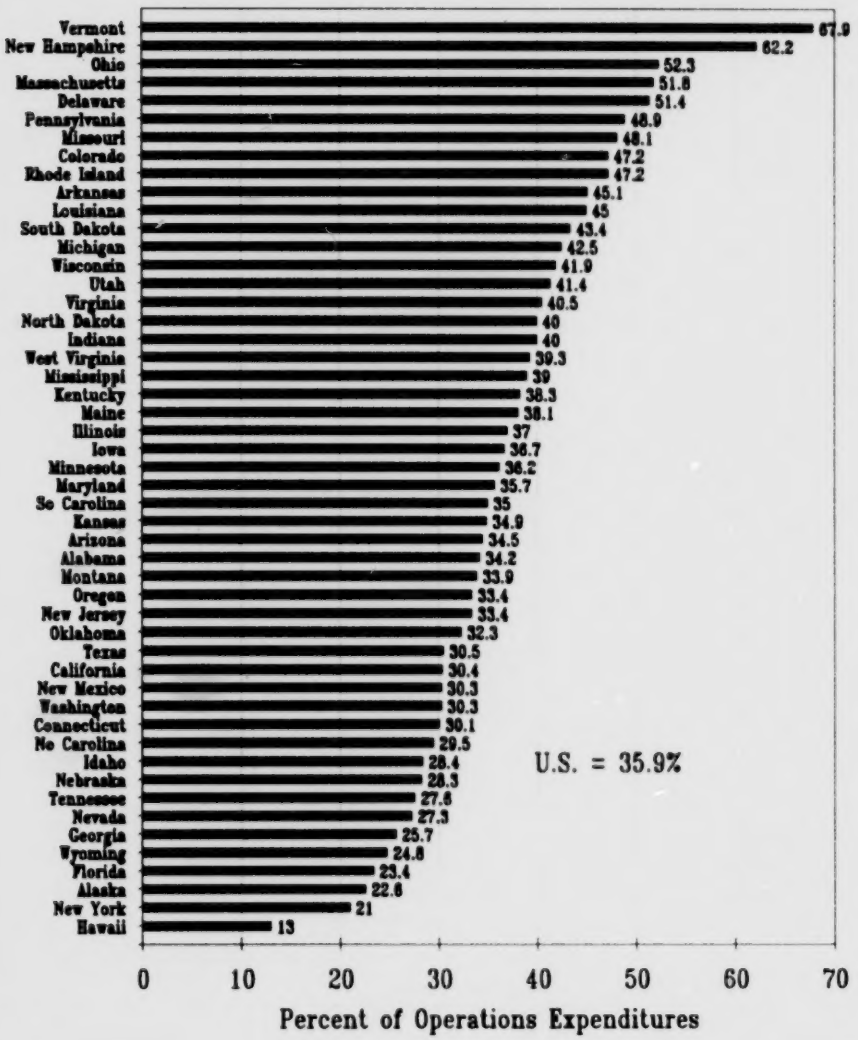
In 1992 the proportion of operating budgets covered by tuition and fee charges to students ranged from a low of 13.0 percent in **Hawaii**, to a high of 67.9 percent in **Vermont**. Generally, states were all over the map on this one, without clear size, region, or other readily apparent correlations with rankings.

Between 1984 and 1992, the proportion of operating budgets of public institutions increased from 28.4 percent to 35.9 percent, or by 7.4 percent. However, the experience across states varied widely, as it usually does.

States with Largest and Smallest Increases in Proportion of Operating Budgets Covered by Institutional Charges Between 1984 and 1992

Massachusetts	+29.6%
Arkansas	+19.2%
North Dakota	+18.4%
Rhode Island	+18.1%
Louisiana	+16.6%
Kentucky	+14.0%
Utah	+14.0%
Wisconsin	+12.8%
UNITED STATES	+7.4%
North Carolina	+2.4%
Hawaii	+1.7%
South Dakota	+1.5%
Idaho	+1.4%
Tennessee	+0.6%
Nebraska	+0.5%
Nevada	-1.9%
New York	-2.2%

Institutional Charges Share of Operating Expenditures for State Colleges and Universities, FY1992



At one extreme, **Massachusetts** increased the proportion of operating budgets covered by institutional charges by 29.6 percent, from 22.2 percent in 1984 to 51.8 percent by 1992. Massachusetts, of course, has been plagued by prolonged economic recession and state budget deficits.

At the other extreme, **New York** and **Nevada** managed to *reduce* the proportion of operating budgets in public colleges and universities that were covered by institutional charges. New York reduced its coverage from 23.2 percent in 1984 to 21.0 percent in 1992. Nevada decreased its coverage from 29.3 percent in 1984 to 27.3 percent in 1992.

Summary and Conclusions

This analysis has illustrated the diminishing role of state higher education institutions in state finance that has occurred over the last 25 years. Higher education's share of total state expenditures is being displaced largely by growth in welfare and corrections programs.

For higher educational opportunity, the critical issues are the sharply reduced state tax contribution to financing state colleges and universities, and the sharply increased share of operating revenues derived from institutional charges paid by students (and their parents).

There is rock solid evidence that this financial transition from state tax revenues to student charges is not occurring without profoundly adverse consequences for the capacity, quality and affordability of higher education. Part of the evidence is presented in the first analysis in this issue of **OPPORTUNITY**: disparities in the distribution of higher educational opportunity for students from different levels of family income have been growing since this transition began about 1980.

One of the striking contradictions of higher educational finance that results is this: at the same time that the labor market calls for greater levels of postsecondary education and training and a growing share of state government revenues are being paid by college educated workers, states are cutting back in their higher education investments.

Instead of making investments in human resources that both broaden the base of taxpayers and narrow the population base that consumes tax resources, states have chosen--en masse--to do exactly the opposite. States have chosen to narrow their tax paying population by curtailing educational opportunity and broaden the population requiring expensive social services--welfare and corrections, or exactly those with least higher education. This is myopic, tunnel vision public policy at its worst.

Share of Aggregate Income and Mean Income Received by Each Fifth and Top 5 Percent of Families 1967 to 1992

We reproduce below a table from the most recent Census Bureau report on the money income of families in the United States. The table shows the redistribution of family income that has occurred since about 1980. The more extensive table breaks down these data for white, black and Hispanic families. Although the specific numbers vary between racial/ethnic groups, the overall pattern of income redistribution holds for each group.

(Families as of March of the following year. Mean incomes are in 1992 CPI-U-X1 dollars)

Year	Number (thous.)	Percent distribution of aggregate income						Mean income (dollars)						Mean income (dollars)
		Lowest fifth	Second fifth	Third fifth	Fourth fifth	Highest fifth	Top 5 percent	Lowest fifth	Second fifth	Third fifth	Fourth fifth	Highest fifth	Top 5 percent	
TOTAL														
1992	68,144	4.4	10.5	16.5	24.0	44.6	17.6	9,708	23,337	36,777	53,365	99,252	156,290	44,483
1991	67,173	4.5	10.7	16.6	24.1	44.2	17.1	10,027	23,801	36,930	53,562	98,406	152,267	44,539
1990	66,322	4.6	10.8	16.6	23.8	44.3	17.4	10,555	24,620	37,916	54,526	101,338	159,004	45,785
1989	66,090	4.6	10.6	16.5	23.7	44.6	17.9	10,359	24,912	38,702	55,682	104,844	167,950	46,962
1988	65,837	4.6	10.7	16.7	24.0	44.0	17.2	10,197	24,566	38,228	54,902	100,736	157,397	45,788
1987	65,204	4.6	10.8	16.8	24.0	43.8	17.2	10,157	24,591	38,185	54,650	99,875	156,348	45,553
1986	64,491	4.6	10.8	16.8	24.0	43.7	17.0	10,291	24,208	37,569	53,684	97,784	152,041	44,707
1985	63,558	4.7	10.9	16.8	24.1	43.5	16.7	9,966	23,395	36,190	51,872	93,356	143,291	42,956
1984	62,706	4.7	11.0	17.0	24.3	42.9	16.0	9,835	23,088	35,702	51,055	89,970	134,169	41,931
1983	62,015	4.7	11.1	17.1	24.3	42.8	15.9	9,514	22,480	34,661	49,408	86,921	129,514	40,597
1982	61,393	4.8	11.2	17.1	24.2	42.7	15.9	9,535	22,441	34,375	48,757	85,881	128,248	40,198
1981	61,019	5.1	11.3	17.4	24.4	41.8	15.3	10,497	22,792	34,980	49,117	84,202	123,545	40,234
1980	60,309	5.2	11.5	17.5	24.3	41.5	15.3	10,506	23,594	35,740	49,589	84,915	125,390	40,869
1979	59,550	5.3	11.6	17.5	24.0	41.7	15.8	11,089	24,465	36,950	50,882	88,165	133,486	42,310
1978	57,804	5.3	11.6	17.5	24.1	41.5	15.6	10,918	24,298	36,567	50,383	86,631	130,670	41,760
1977	57,215	5.3	11.6	17.5	24.2	41.4	15.7	10,591	23,554	35,521	49,021	84,040	127,336	40,545
1976	56,710	5.5	11.8	17.6	24.1	41.1	15.6	10,759	23,466	35,094	47,950	81,962	124,054	39,846
1975	56,245	5.5	11.8	17.6	24.1	41.1	15.5	10,513	22,895	34,116	46,716	79,814	120,638	38,810
1974	55,698	5.6	12.0	17.5	24.0	41.0	15.4	10,902	23,800	34,829	47,716	81,601	122,961	39,768
1973	55,053	5.5	11.9	17.5	24.0	41.1	15.5	11,069	24,157	35,494	48,508	83,226	125,601	40,491
1972	54,373	5.5	11.9	17.5	23.9	41.4	15.9	10,769	23,725	34,847	47,588	82,534	126,529	39,894
1971	53,296	5.5	12.0	17.6	23.8	41.0	15.6	10,300	22,682	33,187	44,945	77,412	118,034	37,705
1970	51,948	5.5	12.2	17.6	23.8	40.9	15.6	10,263	23,015	33,278	44,889	77,192	117,543	37,728
1969	51,586	5.6	12.4	17.7	23.7	40.6	15.6	10,455	23,317	33,366	44,697	76,549	117,574	37,674
1968	50,510	5.7	12.4	17.7	23.7	40.5	15.6	10,134	22,329	31,901	42,663	72,900	112,378	35,983
1967	49,834	5.4	12.2	17.5	23.5	41.4	16.4	9,380	21,227	30,510	40,919	72,253	114,316	34,859

Roughly speaking, the rich have gotten much richer, and the poor have gotten much poorer. Those in the middle have not done much better than the poor. For example, the lowest income 20 percent of all families had an average income of $9708 in 1992. They received 5.2 percent of all family income in 1980, but by 1992 they received 4.4 percent of all family income. Similarly, the second 20 percent of all families had an average income of $23,337 in 1992. In 1980 this second 20 percent received 11.5 percent of all family income, but by 1992 received 10.5 percent of all family income.

In contrast the top 20 percent of all families had an average income of $99,252 in 1992. In 1980 they received 41.5 percent of all family income, and by 1992 they received 44.6 percent. But the most interesting gains were at the very top. In 1992 average family income for families in the top 5 percent of all families was $156,290, compared to $125,390 in 1980. During this twelve year period, their share of all family income increased from 15.3 to 17.3 percent of the total.

U.S. Bureau of the Census, Current Population Reports, Series P60-184. ***Money Income of Households, Families, and Persons in the United States: 1992.*** **U.S. Government Printing Office, Washington, D.C., 1993.**

Florida Education and Training Placement Information Program

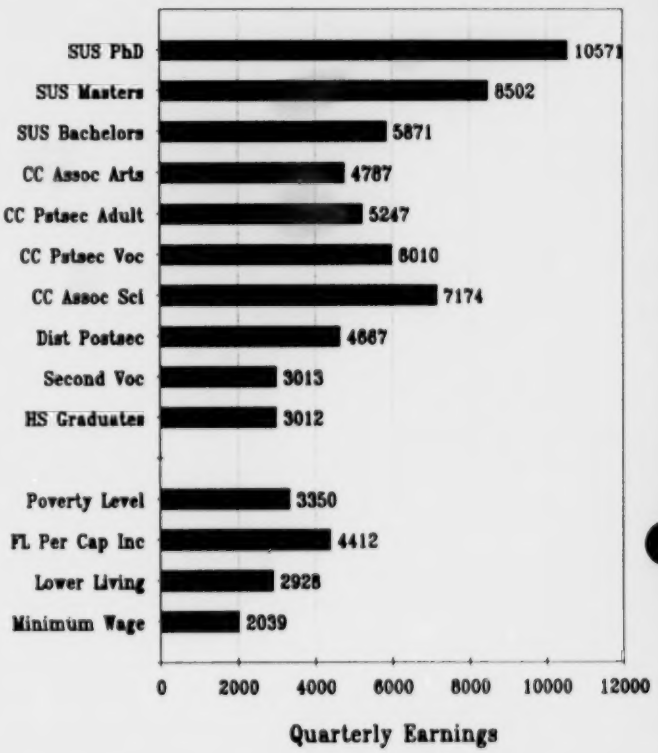
The Florida Education and Training Placement Information Program obtains follow-up data by linking the records of former students to information maintained by several state and federal agencies. It also contacts the employers of former students for information on their job titles and work locations.

FETPIP data have been used to assist in planning and accounting for education programs including technical and vocational programs. Data are provided to administrators and policy makers that describe employment, military enlistment, and continuing education experiences of former students. The data have also been supplied to students to assist them in selecting training program alternatives.

FETPIP has been used to develop follow-up information for public high schools, vocational programs, community colleges, four-year universities, and various training programs. It has developed information on former prison inmates, migrant and seasonal farm workers, Project Independence clients, and JTPA participants.

One of its benefits is the collection of comparable data across a variety of education programs, one of which is earnings. As shown in the chart on the right, quarterly earnings for 1991-92 graduates of various secondary and postsecondary education programs show some surprising differences for 1992. Earnings of community college Associate of Science and Postsecondary Vocational completers were greater than state university baccalaureate degree recipients. For further information call FETPIP staff at (904)487-0900.

Quarterly 1992 Earnings of Florida Graduates Who Were Students in 1991-92



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Postsecondary Education
OPPORTUNITY

The Mortenson Research Letter on Public Policy Analysis of Opportunity for Postsecondary Education

Number 25 **Iowa City, Iowa** **July 1994**

For Most . . . *. . . But Not for All*

College Continuation Rate for Recent High School Graduates Reached Record in 1993

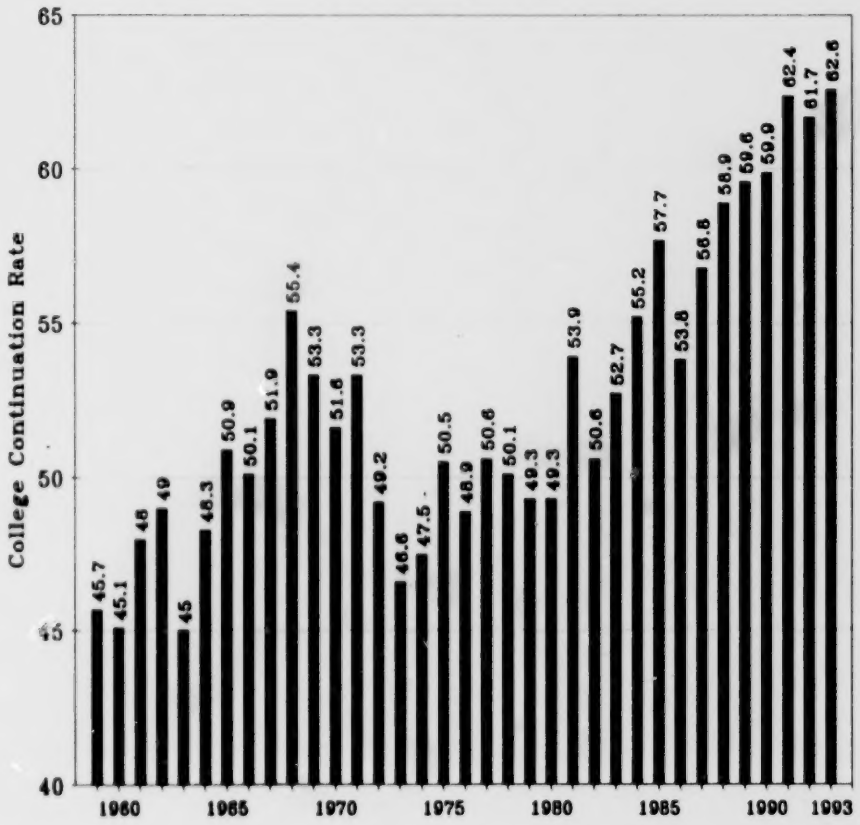
In 1993 there were 2.338 million high school graduates in the United States, 1.464 million of which were enrolled in college by October of 1993. They continued their educations in college at the rate of 62.6 percent, the highest on record. The increase was 0.9 percent over 1992 with large gains reported for women, blacks and Hispanic recent high school graduates. Men showed virtually no change, while the rate declined for whites for the last two years.

The most recent increase continues a surge that began twenty years ago, in 1973. Then, the jobs available to people with different levels of educational attainment started to shift. Since 1973 the earnings of persons with high school diplomas have dropped sharply in constant dollars, while the earnings of college graduates have kept up with inflation.

The income advantage of college trained workers over high school trained workers has widened sharply during the last twenty years. The changing job market over the last twenty years has, more than any other single factor, drawn a larger share of each high school class into collegiate enrollment.

The college continuation rate data have been collected since 1959 in the October edition of the Current Population Survey. The data cited here are reported by the Bureau of Labor Statistics from that CPS survey.

College Continuation Rates
for Recent High School Graduates
1959 to 1993



U.S. Department of Labor, Bureau of Labor Statistics. **News.** USDL 94-252. "College Enrollment of 1993 High School Graduates." May 20, 1994.

The magnitude of the effect of the increase in the college continuation rate over the last two decades is masked by the huge decline in the number of high school graduates, particularly since about 1980. Between 1980 and 1993, the number

of high school graduates declined by 751,000, while the number of college freshmen from the respective classes declined 60,000 students. If the college continuation rate that existed in 1980 had followed through 1993, the decline in the number of college freshmen would have been about 370,000, or directly proportional to the decline the size of the high school graduate population. This would convert to a total undergraduate enrollment loss of nearly one million students.

(Quite likely, from a labor market demand-supply perspective, the increase in the college continuation rate between 1973 and 1993 reduced the rate of increase in the earnings differential between high school and college educated workers. The increased college participation rate reflects an excess of high school educated workers and a shortage of college educated workers. Market forces would both reduce the excess supply of high school graduates in the labor force--hence increasing their wages--and increase the supply of college graduates in the labor force--thus decreasing their wages.

To a very important degree, the equilibrium-seeking market forces of demand and supply for labor with different skill levels stabilizes society. Impediments to market forces--such as enrollment limits in under-funded institutions, deterioration in quality of educational services provided, and affordability barriers--will destabilize society by magnifying disparities in private welfare and severing bridges to improved private welfare for those who seek to improve their condition in life.)

Gender

That not all subgroups of the population have enrolled in college immediately after high school in the same way becomes immediately apparent when the enrollment totals are broken down by gender. As some say, men are from Mars and women are from Venus: between 1959 and 1993, the rate at which male high school graduates went on to college increased by 5.5 percent, while the college continuation rate for females increased by 26.8 percent.

For **males**, with few exceptions, the college continuation rate for recent high school graduates has ranged between 50 and 60 percent for the last three and a half decades. Their college continuation rate spiked upward during the Vietnam War when males were exempted from military conscription by full-time college enrollment. Male college continuation rates sagged noticeably during the 1970s when the earnings differential between college- and high school-educated males narrowed slightly. Beyond these two periods, there is not much else to report: year after year about 55 to 60 percent of recent male high school graduates can be found enrolled in college by the following October.

An entirely different picture emerges for **females**. Over the last three and a half decades, recent women high school graduates have gone on to college the following fall at a steadily increasing rate. In 1960 the college continuation rate for females was 37.9 percent. By 1970 it was 48.5 percent. By 1980 it was 51.8 percent, by 1990 62.0 percent, and by 1993 was 65.4 percent.

Between 1959 and 1974 the rate at which female high school graduates continued their educations in college was well below that for males, although the gap was narrowing during these years. In 1975 the college continuation rate for females reached rough equality with the rate for males and remained roughly equal through 1987. For the last six years--1988 through 1993--the college continuation rate for females has averaged 5.2 percent above the rate for males. This extraordinary growth in the rate at

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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement
This research letter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this research letter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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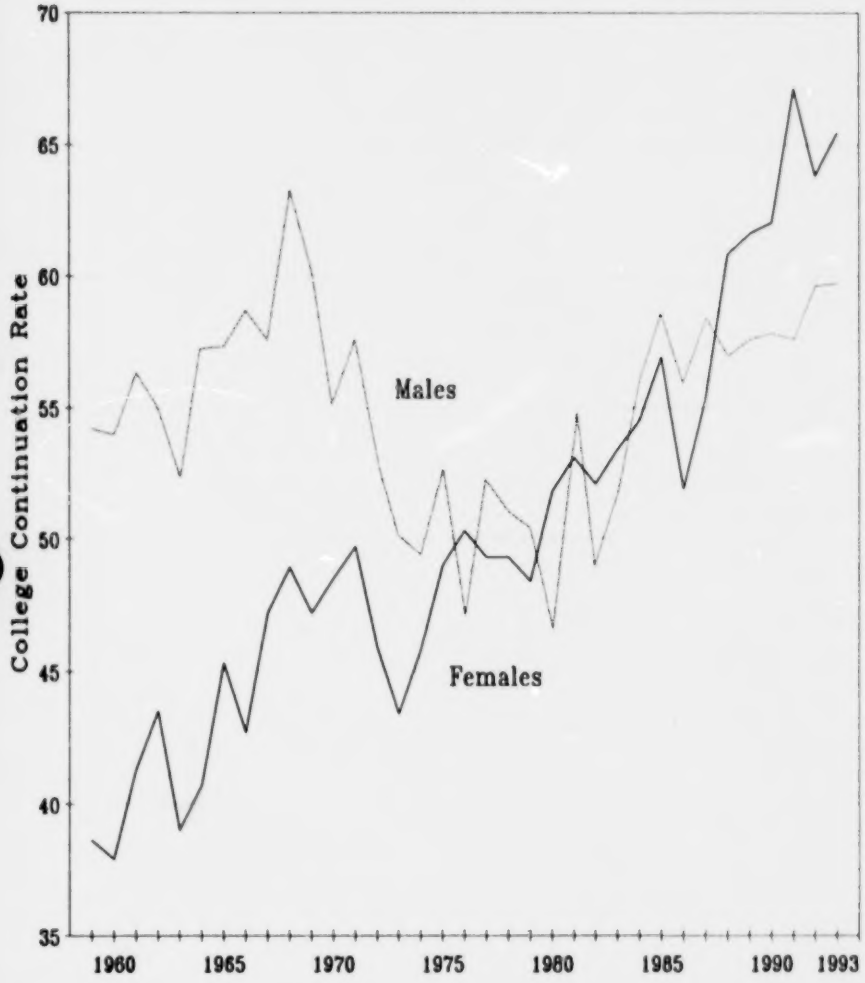
College Continuation Rates by Gender for Recent High School Graduates 1959 to 1993



which females continue their educations in college shows no sign of abating. The more challenging question for public policy is: Why haven't young men made more progress in becoming higher educated for their adult roles during the last 35 years?

Race/Ethnicity

The BLS data from the Current Population Survey are published for whites, blacks and Hispanics. With some adjustments for a changing population definition and sampling variability, we publish those results here.

In 1993 there were 1,910,000 white high school graduates, down from a peak of 2,825,000 white high school graduates in 1975, but up from the 1991 low-point total of 1,867,000.

In 1993 whites comprised 81.7 percent of the high school graduate population. This was down from 1980 when whites were 86.8 percent of all high school graduates, 1970 when whites were 89.3 percent, and 1960 when whites were 93.2 percent of the total. Not only do these numbers reflect the increasing racial diversity of the high school graduate population, but the Hispanic population (which is an ethnic, not racial population descriptor) has grown from 5.8 percent of the white population in 1976 to 10.5 percent by 1993.

Of the 1993 total white high school graduate population, 1,200,000 were enrolled in college in October of 1993. This was a college continuation rate of 62.8 percent, down from 63.4 percent in 1992 and a peak of 64.6 percent in 1991. This decline in the college continuation rate for whites between 1991 and 1993 means that there were about 34,000 fewer white college freshmen enrolled in college in October 1993 than there would have been had white high school graduates enrolled in college at the 1991 rate. However, these white college continuation rates were up from 49.9 percent in 1980, 48.0 percent in 1970 and 36.0 percent in 1960.

In 1993 there were 302,000 black high school graduates, which was down from a peak of 438,000 in 1984. In 1993 blacks were 12.9 percent of high school graduates, compared to 13.9 percent in 1986 and 10.7 percent in 1976.

Data on blacks were first reported by BLS in 1976. Between 1960 and 1975 data were reported for Non-whites, which includes blacks, Asians, and other races. In 1976 blacks were 92.2 percent of the non-white population, and thus in reporting here we use the non-white data between 1960 and 1975 to reflect the college continuation rate experience for blacks. However, since 1976 blacks have been a declining share of the non-white population: by 1986 blacks were 80.6 percent of the non-white population,

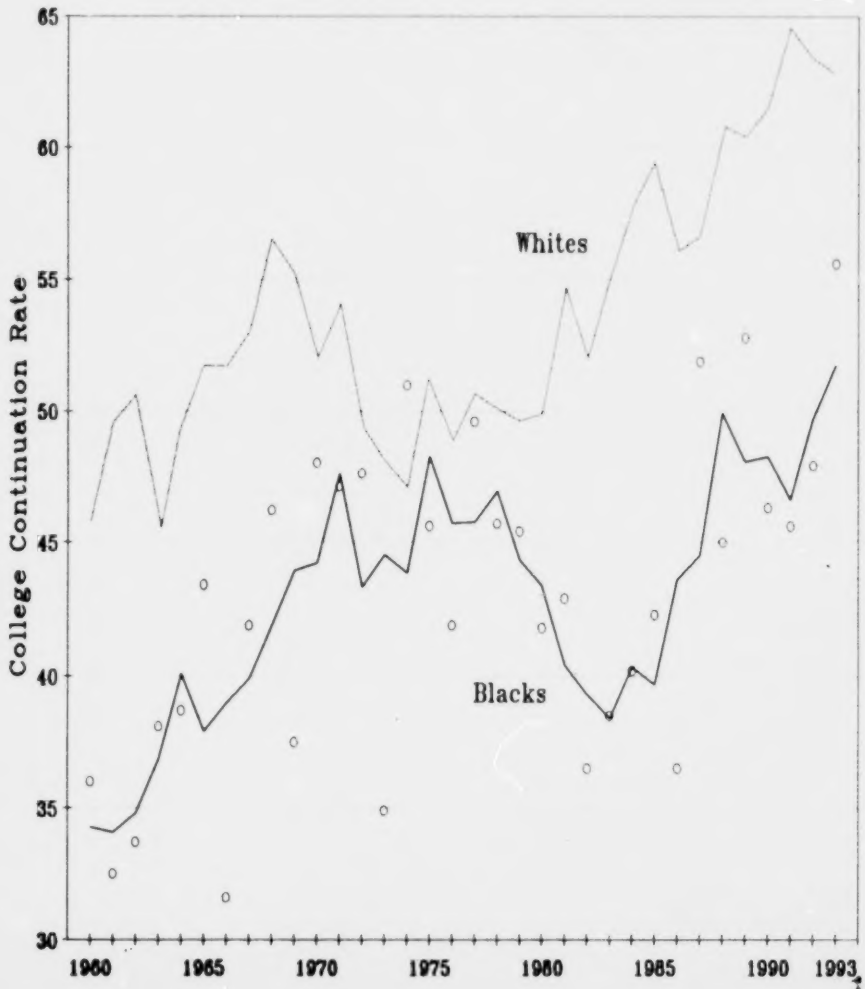
and by 1993 they were 70.6 percent of the non-white population of high school graduates.

Because blacks are a relatively small part of the population and because data are sampled in the Current Population Survey, sampling variability produces "spiking" in the plotted data. This spiking confuses our interest in identifying underlying trends in these data. For that reason we have plotted both the calculated college continuation rates (as dots) for blacks as well as the underlying trend (as a line) for blacks for the period 1960 through 1993.

In 1993 the college continuation rate for black high school graduates was 51.8 percent, the highest on record and up from 49.7 percent in 1992.

Since 1960 the college continuation rate for black high school graduates has increased by about 18 percent, from less than 35 percent in 1960-1962, to nearly 52 percent by 1993. Generally three periods are evident in the data: significant growth in the black college continuation rate between 1960 and the mid-1970s, sharp decline from 1978 through 1983, followed by a restoration of growth through the present. Blacks came closest to equaling the white college continuation rate during the 1970s, and in fact in 1974 the BLS reported data had the black college continuation rate above the white rate.

College Continuation Rates
for White and Black Recent High School Graduates
1960 to 1993



The BLS reports from the Current Population Survey include data for Hispanics beginning in 1976. We have no data on Hispanics prior to 1976.

Nearly all Hispanics are whites by race, and we treat them as such here. Thus, comparisons of Hispanics to whites means that Hispanics are included in both groups. However, in 1993 they constituted only about 10 percent of the white population. Because of the small numbers/ sampling/statistical spiking problem, here too we plot mainly a moving three year average of reported data to more accurately ascertain the underlying trend in the college enrollment of Hispanic high school graduates.

In 1993 the Bureau of Labor Statistics reported that there were 200,000 Hispanic high school graduates in the United States, the largest number on record. Of these, 125,000 were enrolled in college, also the largest number on record. While we do not make too much of these single year estimates, there is clearly a growth trend in both numbers in recent years.

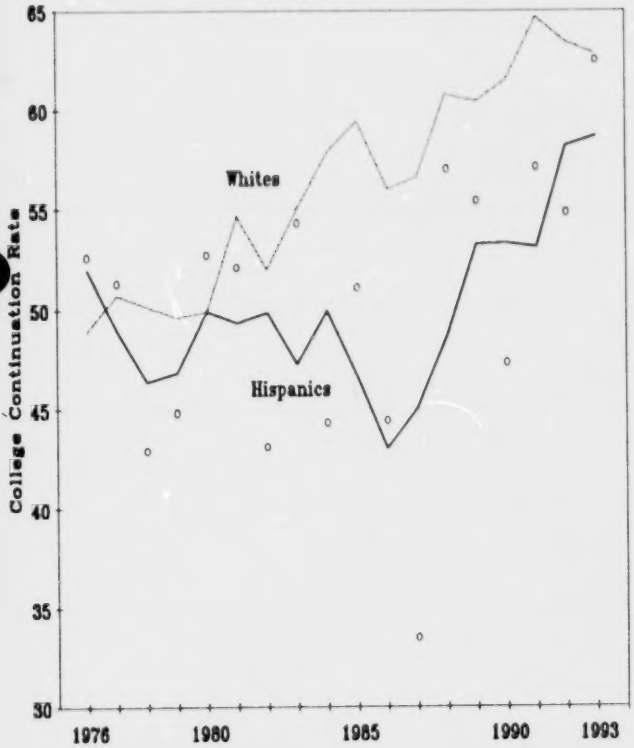
Hispanic high school graduates of 1993 continued their educations in college in October of 1993 at a rate of about 58.7 percent, up from 58.1 percent in 1992, and about 53 percent in the three year period from 1989 to 1991.

If the BLS reported number for 1987 can be considered a statistical outlier

(see chart), then the college continuation rate for Hispanic high school graduates remained fairly steady at about 50 percent from 1976 through the late 1980s. Since about 1989, the college continuation rate for Hispanic high school graduates appears to have made substantial improvement.

Compared to the college continuation rate for whites, the rate for Hispanics was about equal during the 1970s. The rates grew apart during the 1980s, largely due to the growth in the rate for whites. During the 1990s, the gap appears to be narrowing once again.

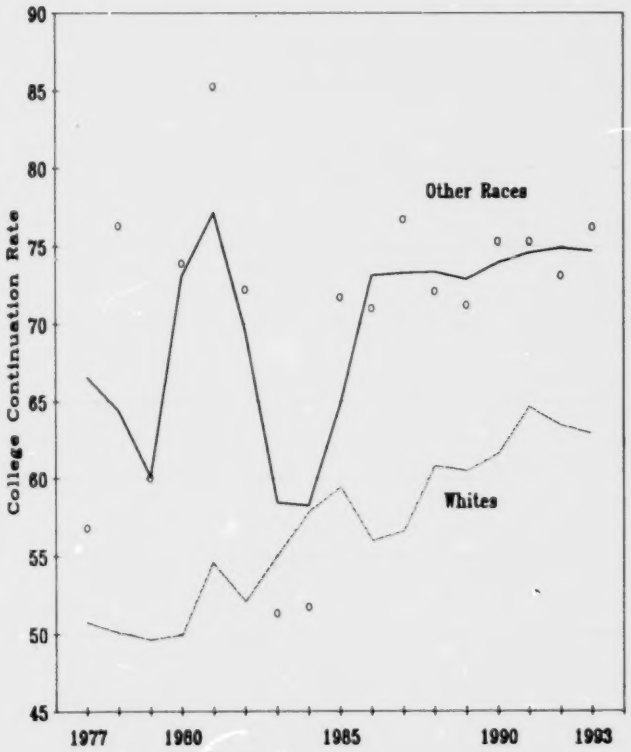
College Continuation Rates for White and Hispanic Recent High School Graduates 1976 to 1993



Other race population data on high school graduates and college freshmen can be deduced from the published BLS data from the Current Population Survey. This population is mainly Asian. The other race population has grown from 0.9 percent of the 1976 high school graduates, to 3.3 percent in 1986, and 5.4 percent by 1993.

This small population could be overlooked if their college enrollment behavior after high school were not so interesting. The small numbers problems plagues the interpretation of CPS data through the mid-1980s when wild fluctuations from year to year were the rule. However, from 1985 through 1993 these data appear to be quite stable. In 1993 the college continuation rate for the population identified as other race was about 75 percent--where it has been since about 1986. This is well above the rate of about 63 percent for whites.

College Continuation Rates for White and Other Race (Asian) Recent High School Graduates 1977 to 1993



The highlights of these data include the following. First, the rate at which the population of high school graduates continues their education the following fall has shown twenty years of nearly continuous and very substantial increase. The increase between 1973 and 1993 increased the size of the 1993 college freshman class by 34 percent. Second, the rate at which high school graduates continue their educations in college the fall after high school varies greatly. In 1993 the rates ranged from about 52 percent for blacks to about 75 percent for other race (Asians). Not all groups fare equally in the transition for high school to college. Third, the racial/ethnic composition of the population of high school graduates is changing significantly, rapidly, and permanently. It is considerably less white and more minority. This increasing diversity of the high school graduate population offers opportunities to a higher education system used to serving mainly whites.

Time to Complete Baccalaureate Degree

College students are taking more time to complete their baccalaureate studies, according to data reported by the National Center for Education Statistics from its Recent College Graduate Surveys.

- *In 1977 the median number of years between high school graduation and receipt of the baccalaureate degree was 4.2 years.*
- *By 1986 it was 4.6 years, and by 1990 it was 4.7 years.*
- *The increasing time to receive a baccalaureate degree applies to both men and women, although men are likely to take somewhat longer to receive their degrees.*
- *Students graduating from private colleges are far more likely to complete their degrees in four years than are students graduating from public colleges.*

These and many other important findings are reported in the NCES publication *The Condition of Education, 1993*. We summarize some of the highlights here.

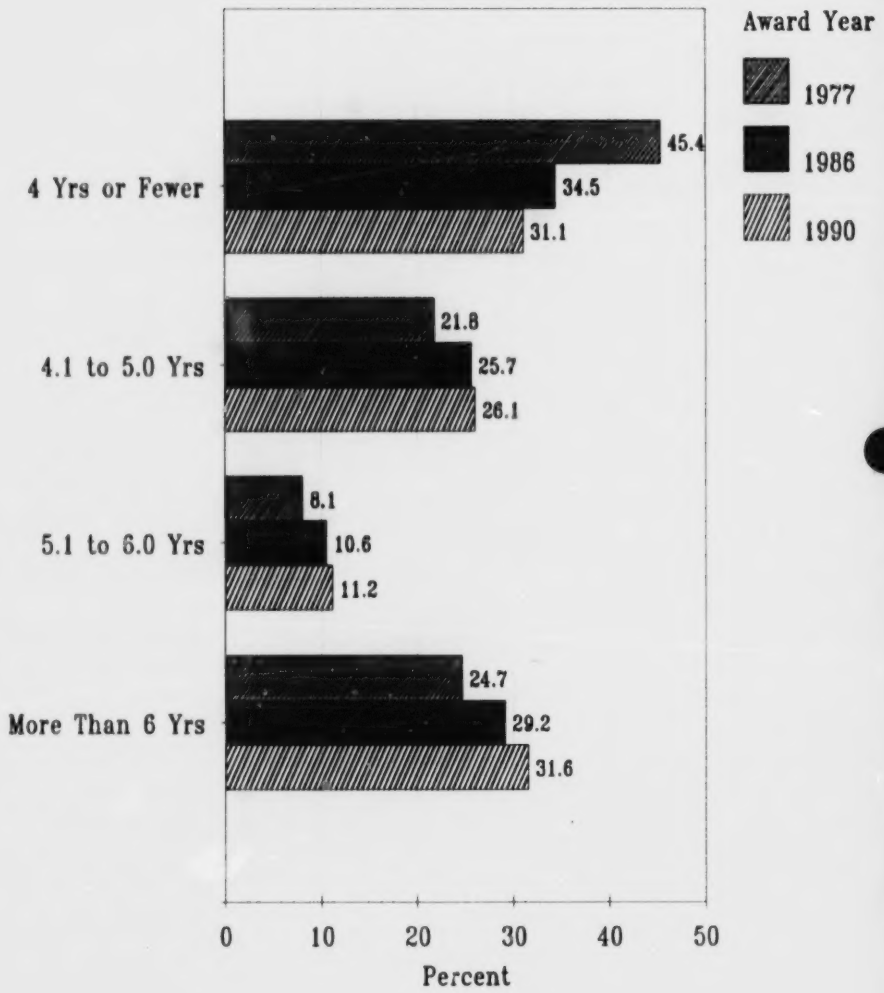
The Survey Data

Time to complete the baccalaureate degree has been calculated by NCES in two ways. The first is time between high school graduation and the month in which the baccalaureate degree was awarded. High school graduation is assumed to be June by NCES.

The second is the time between starting college and the month in which the baccalaureate degree was awarded. The graduate is assumed to have started college in September.

From these data we have also calculated median years to complete the baccalaureate degree to summarize the data reported by NCES.

Years Between High School Graduation and Award of Baccalaureate Degree 1977, 1986 and 1990



Time to Degree

The above chart shows the percentage of baccalaureate degree recipients receiving their degrees in 1977, 1986 and 1990 by elapsed time from high school graduation.

The proportion receiving their degrees in four years or less dropped sharply between 1977 and 1990, from 45 to 31 percent. At every time period beyond four year, the proportions taking longer increased between 1977 and 1990.

The data by gender show similar patterns. For both males and females,

the proportion of baccalaureate degree recipients receiving their degrees within four years of graduating from high school declined and the proportion taking more increased. In 1993 35.1 percent of the women received their degrees in four years or less after high school, compared to 26.6 percent of the men. However, between 1977 and 1990, the proportion of women taking six years or longer to receive their baccalaureate degree increased by 11.4 percent, compared to a 3.5 percent increase for men during the same period.

The time to complete a baccalaureate degree within various years of starting college is shown for different groupings of 1990 graduates in the chart on this page. Generally:

- Women were more likely than men to complete their degrees in four years or less, by a 47.4 to 38.9 percent margin.
- Graduates of private colleges were considerably more likely to graduate in four years or less than were graduates of public institutions, by a 57.9 to 36.1 percent margin.
- Whites and Asians were most likely to graduate in four years (44.4 percent), with blacks (37.0 percent), Hispanics (31.1 percent) and American Indians (26.6 percent) taking longer.

Summary and Conclusions

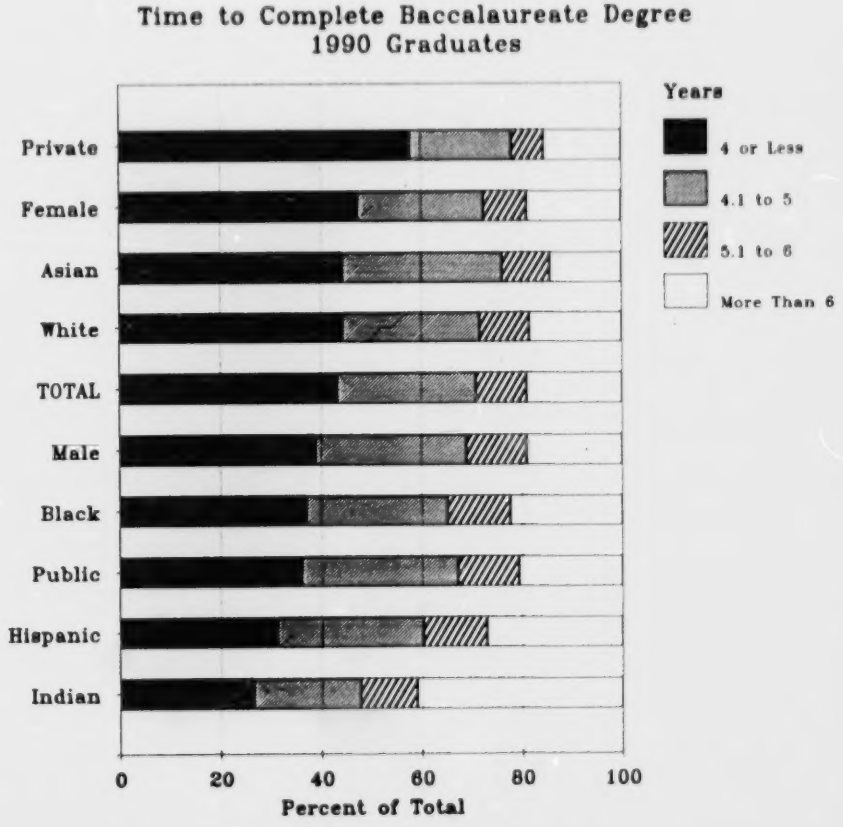
In 1990 about 31 percent of college graduates received their baccalaureate degrees within 4 years of high school graduation, while 41 percent received them within 4 years of entering college. The proportion of graduates moving through baccalaureate studies in the traditional four-year program has declined significantly since 1977.

The NCES speculates that "taking longer to graduate may result from delaying entrance, changing schools or majors, stopping out, or taking reduced course loads for financial, academic, or social reasons. Such delays can be costly both to the institution and the individual."

Our perspective is from the role of public policy fostering or impeding opportunity for postsecondary education. We see abundant evidence that serious underfunding of higher education has caused delays for students seeking their bachelor's degrees. There have been huge funding cutbacks--on the order of 25 to 30 percent since the late 1970s--in federal, state and local government support of higher education institutions and students (See August issue of **OPPORTUNITY**).

These cutbacks have caused seriously underfunded public institutions to impose enrollment limits, leave full- and part-time faculty positions unfilled, cut full- and part-time faculty positions, increase instructional workloads, increase class size, reduce course sections, reduce class selections, cut and consolidate programs, reduce library acquisitions, and reduce equipment and supply purchases, according to the 1993 survey of public four-year colleges and universities conducted by the National Association of State Universities and Land-Grant Colleges and the American Association of State Colleges and Universities.

We see no evidence that students are any less committed to (previous article) or prepared (following article) for college. Instead we see unprecedented reduction in social resources for higher education, making completing college in four years more of a challenge for many students than it has probably ever been.



Academic Preparation for College by Family Income Background

High school students and their parents can prepare for college in two important ways: financially and academically. Here we examine academic preparation for college by high school students, particularly in the type and amount of coursework taken during the high school years.

The collegiate experience is expensive to both students and their families, and to the governments that provide funds to institutions and student aid programs. But it is also valuable to both students who complete programs, graduate, and gain access to the higher paying jobs available to college graduates, and to governments whose tax revenues increasingly result from these higher paying jobs.

Students that are not academically prepared are less likely to be successful in college, and more likely to be drop-outs and more likely to be student loan defaulters.

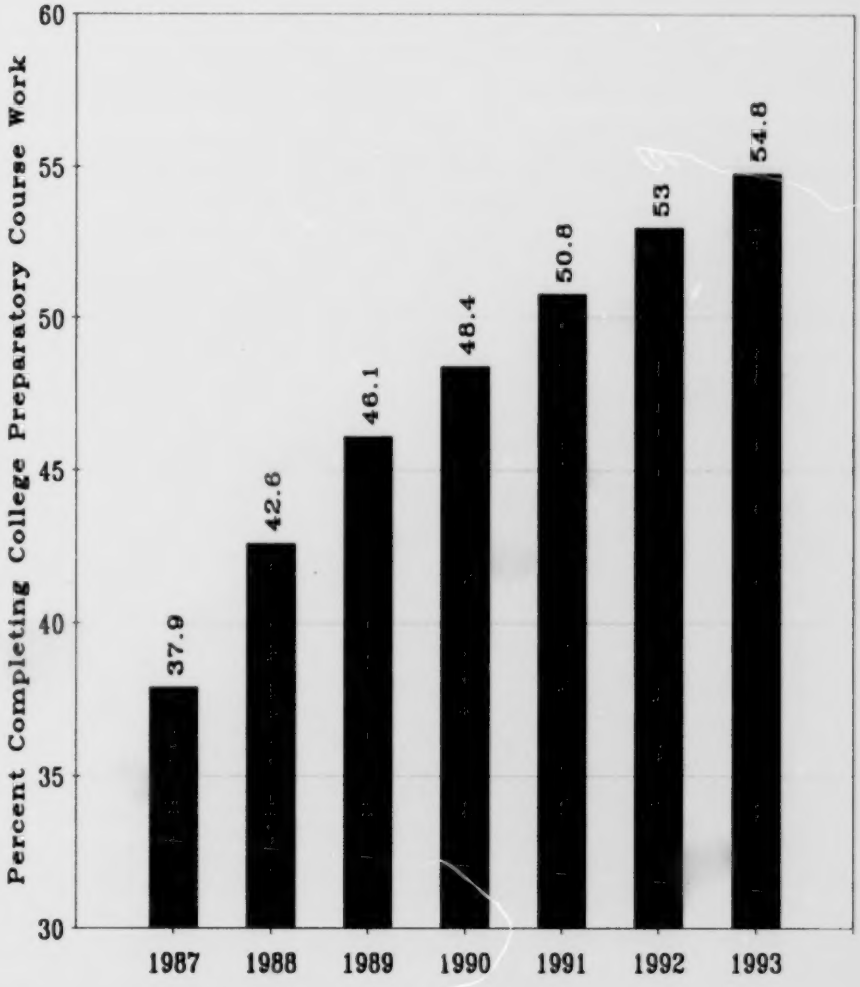
Here we examine the relationship between the family income background of high school seniors and their academic preparation for college as measured by course-taking in high school and their performance on the ACT Assessment. For this analysis we use ACT's definition of a college preparatory curriculum as:

- Four or more years of English,
- Three or more years of mathematics,
- Three or more years of social studies, and
- Three or more years of natural sciences.

The American College Testing Program calls the above course sequence to be the "college core coursework" for academic readiness for college.

In this analysis we examine the relationship of the college core to performance on the ACT Assessment and to student characteristics of family income, gender, and race/ethnicity. Data are reported for 1987 through 1993 high school graduates.

College Core Coursework Completion Rate for ACT-Tested College Bound High School Seniors 1987 to 1993



We are grateful to Dr. James Maxey of ACT for his assistance in preparing data shown in the charts and tables that follow.

ACT Assessment

The ACT Assessment is one of two national college admissions examinations (the other being the Scholastic Aptitude Test) used by selective admissions colleges to sort among applicants for admission. The

ACT is normally administered in the junior or senior year of high school to students planning to attend college after high school graduation.

In 1993 about 876,000 high school seniors took the ACT. This was about 35 percent of all public and private high school graduates in the United States. If all went on to college the following fall then about 55 to 60 percent of college freshmen have taken the ACT in high school. Between 1987 and 1993 the ACT was taken by an increasing share of the nation's high school graduates and college freshmen.

At the time the high school student applies to take the ACT, he/she completes a questionnaire called the Student Profile Section. Among many other items, the questionnaire asks about the student's high school coursework, estimated family income, gender and race/ethnicity. Thus, the final ACT record for each tested student includes ACT test scores, questionnaire information, and interest inventory results.

Core Coursework

As shown in the chart on the previous page, the proportion of ACT-tested college bound high school seniors that have completed college core coursework by the time they graduate increased substantially between 1987 and 1993, from 37.9 to 54.8 percent.

The number completing the college core curriculum increased from about 284,000 to 453,000. The number that did not complete the college core coursework dropped from about 465,000 to 374,000 during this same period. (College core coursework could not be determined from student records on about 50,000 ACT-tested high school seniors in 1993.)

As is shown in the tables in this report, the proportion of ACT test taking seniors completing the college core coursework increased between 1987 and 1993 for all levels of estimated family income, both genders, and every racial/ethnic group.

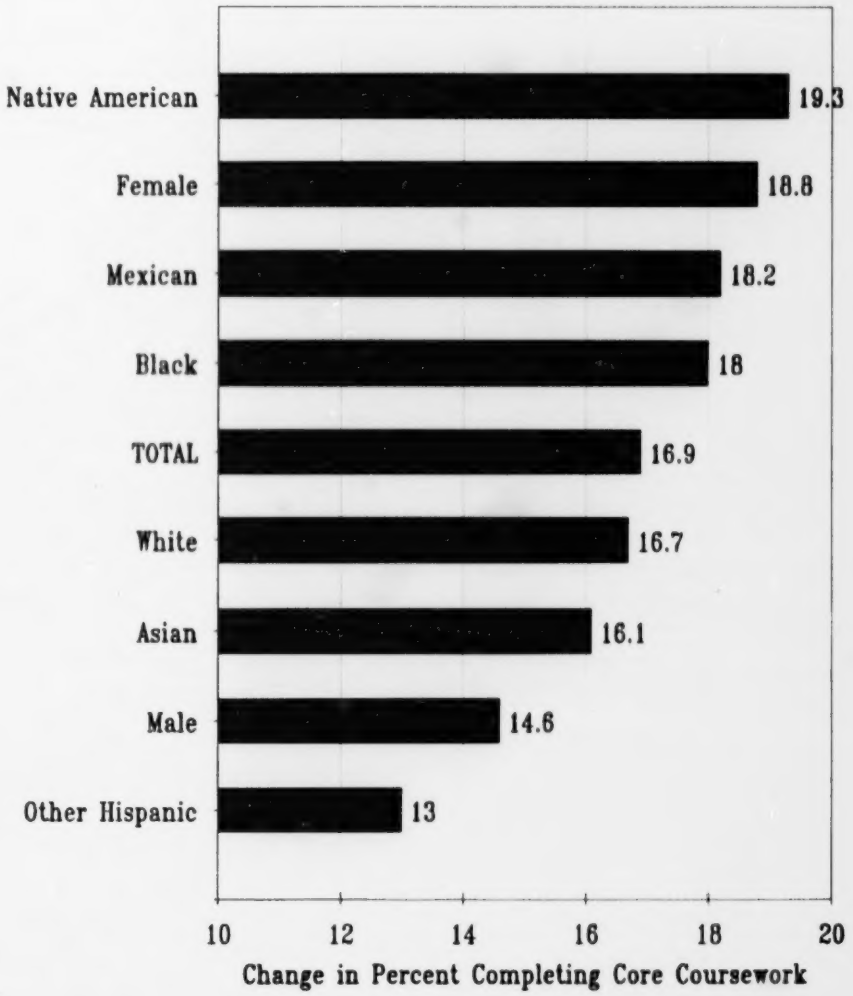
However, as is usually the case, not all demographic groups increased by the same amount between 1987 and 1993. The largest gains were among Native Americans and females, while the smallest gains were among other Hispanics (Puerto Rican, Cuban, etc.) and males.

Changes in college core coursework completion rates across levels of family income are more difficult to interpret due to the eroding effects of inflation between 1987 and 1993. But even here strong gains are apparent.

Core Coursework and ACT Scores

For every population group, ACT

Change in Percent of ACT-Tested High School Seniors That Completed College Core Coursework Between 1987 and 1993



Composite scores were greater for those who completed the college core coursework than for those who did not. These differences were greatest for males (3.2), other Hispanics (2.9), whites (2.8) and Asians (2.8), and they were least for Mexicans (1.6) and blacks (2.0).

The differences in ACT Composite scores also persisted across levels of family income--they increased with increasing levels of estimated family income. At any given level of family income, the average ACT Composite score was 1.3 to 2.7 points higher for those who completed the college core curriculum compared to those who did not. These differences were least at the lowest levels of family income, and greatest at the highest levels of family income.

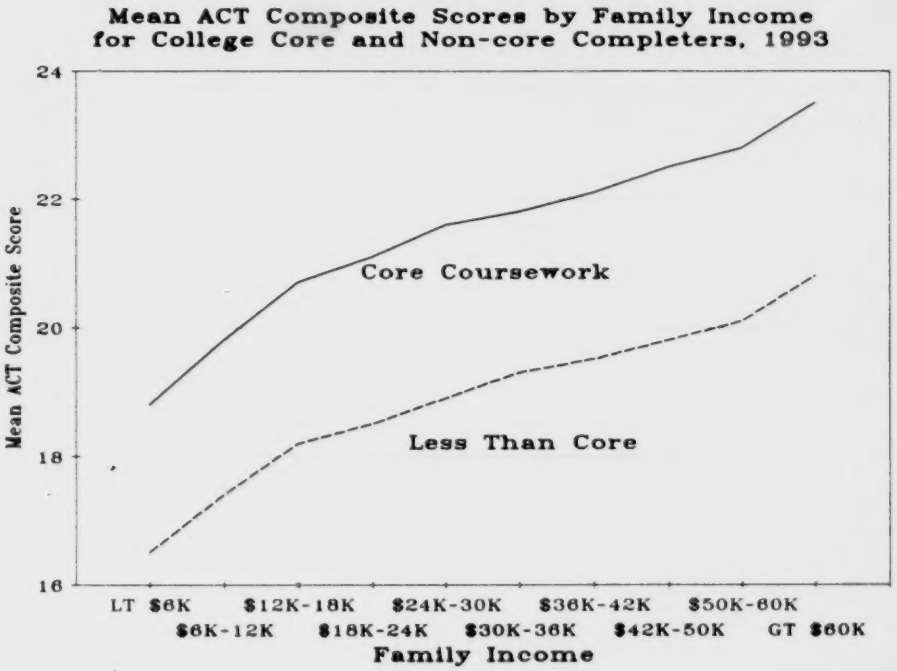


TABLE 1
ACT Composite Scores and College Preparatory Core Course Completion for All College-Bound High School Seniors 1987-1993

Estimated Family Income	1993 ACT Mean Composite Score			College Prep Core Course Completers			
	All[1]	Core	LT Core	1987	1989	1990	1993
0-$5,999	17.4	18.8	16.5	27.4%	34.0%	35.7%	41.2%
$6,000-11,999	18.5	19.8	17.4	30.3	38.3	39.9	44.9
$12,000-17,999	19.4	20.7	18.2	32.7	40.1	42.2	47.9
$18,000-23,999	19.8	21.1	18.5	35.1	42.2	44.6	50.0
$24,000-29,999	20.3	21.6	18.9	36.4	44.3	46.2	52.0
$30,000-35,999	20.6	21.8	19.3	38.2	45.8	48.0	53.8
$36,000-41,999	21.0	22.1	19.5	40.1	47.5	49.4	54.7
$42,000-49,999	21.3	22.5	19.8	42.6	50.1	52.2	57.4
$50,000-59,999	21.7	22.8	20.1	44.0	52.1	54.1	59.7
$60,000 & over	22.5	23.5	20.8	47.2	55.8	58.4	64.7
TOTAL	20.7	22.0	19.1	37.9%	46.1%	48.4%	54.8%
Number:							
1993	875,603	453,064	374,256				
1990	817,096	370,379	394,540				
1989	855,309	380,576	445,236				
1987	777,508	283,562	464,760				

[1]Includes those for whom core course work could not be determined.

TABLE 2
ACT Composite Scores and College Preparatory Core Course Completion for Male College-Bound High School Seniors 1987-1993

Estimated Family Income	1993 ACT Mean Composite Score			College Prep Core Course Completers		
	All[1]	Core	LT Core	1987	1990	1993
0-$5,999	17.6	19.2	16.5	30.5%	38.4%	41.7%
$6,000-11,999	18.6	20.1	17.4	33.3	41.6	45.0
$12,000-17,999	19.5	20.9	18.2	35.6	44.3	48.7
$18,000-23,999	20.0	21.4	18.5	38.3	46.6	50.4
$24,000-29,999	20.5	21.9	18.9	39.6	48.4	52.9
$30,000-35,999	20.8	22.1	19.3	41.5	50.2	54.7
$36,000-41,999	21.1	22.4	19.5	43.1	51.9	55.6
$42,000-49,999	21.5	22.7	19.8	46.0	54.1	58.2
$50,000-59,999	21.9	23.1	20.1	47.8	55.9	60.4
$60,000 & over	22.7	23.7	20.8	50.0	60.1	65.3
TOTAL	21.0	22.4	19.2	41.3%	50.9%	55.9%
Number:						
1993	393,707	205,844	162,625			
1990	373,310	175,840	169,671			
1987	356,695	140,352	199,505			

[1]Includes those for whom core coursework could not be determined.

TABLE 3
ACT Composite Scores and College Preparatory Core Course Completion for Female College-Bound High School Seniors 1987-1993

Estimated Family Income	1993 ACT Mean Composite Score			College Prep Core Course Completers		
	All[1]	Core	LT Core	1987	1990	1993
0-$5,999	17.3	18.5	16.5	25.7%	34.0%	40.8%
$6,000-11,999	18.4	19.6	17.5	28.4	38.8	44.9
$12,000-17,999	19.2	20.4	18.2	30.7	40.6	47.3
$18,000-23,999	19.7	20.9	18.5	32.5	42.9	49.6
$24,000-29,999	20.1	21.3	18.9	33.6	44.3	51.2
$30,000-35,999	20.5	21.6	19.3	35.4	46.1	53.0
$36,000-41,999	20.8	21.9	19.5	37.3	47.2	54.0
$42,000-49,999	21.2	22.2	19.8	39.4	50.4	56.6
$50,000-59,999	21.6	22.6	20.1	42.0	52.5	59.0
$60,000 & over	22.4	23.3	20.8	44.5	56.6	64.2
TOTAL	20.5	21.8	19.1	35.1%	46.4%	53.9%
Number:						
1993	481,896	247,220	211,631			
1990	443,786	194,539	224,869			
1987	420,729	143,205	265,235			

[1]Includes those for whom core coursework could not be determined.

TABLE 4
ACT Composite Scores and College Preparatory Core Course Completion for Black College-Bound High School Seniors 1987-1993

Estimated Family Income	1993 ACT Mean Composite Score			College Prep Core Course Completers		
	All[1]	Core	LT Core	1987	1990	1993
0-$5,999	15.8	16.7	15.1	25.4%	35.3%	41.1%
$6,000-11,999	16.4	17.3	15.6	28.5	39.6	44.7
$12,000-17,999	16.7	17.7	15.8	30.2	41.4	47.7
$18,000-23,999	17.0	18.1	16.1	31.8	42.2	49.1
$24,000-29,999	17.3	18.4	16.2	32.8	44.7	50.3
$30,000-35,999	17.6	18.5	16.6	34.2	46.7	53.1
$36,000-41,999	17.8	18.8	16.8	34.9	48.2	53.2
$42,000-49,999	18.1	19.1	16.9	39.0	49.4	56.1
$50,000-59,999	18.6	19.6	17.3	38.8	51.4	57.6
$60,000 & over	19.3	20.2	17.9	43.3	52.7	60.4
TOTAL	17.1	18.1	16.1	30.9%	42.6%	48.9%
Number:						
1993	80,401	38,893	40,620			
1990	71,197	29,814	40,127			
1987	61,772	18,789	42,109			

[1]Includes those for whom core coursework could not be determined.

TABLE 5
ACT Composite Scores and College Preparatory Core Course Completion for Native American College-Bound High School Seniors 1987-1993

Estimated Family Income	1993 ACT Mean Composite Score			College Prep Core Course Completers		
	All[1]	Core	LT Core	1987	1990	1993
0-$5,999	16.1	17.7	15.6	16.8%	26.2%	31.9%
$6,000-11,999	17.2	18.9	16.5	20.2	29.7	37.0
$12,000-17,999	17.7	19.1	16.7	36.0	35.8	43.7
$18,000-23,999	18.0	19.3	17.0	27.4	40.5	44.7
$24,000-29,999	18.8	20.0	17.8	28.7	39.5	47.1
$30,000-35,999	18.9	20.1	17.7	28.2	39.4	50.0
$36,000-41,999	19.6	20.9	18.4	32.2	41.2	49.5
$42,000-49,999	19.7	21.1	18.3	36.8	46.4	50.7
$50,000-59,999	20.0	21.0	18.9	32.4	46.5	55.5
$60,000 & over	20.6	21.9	18.9	36.7	49.5	58.0
TOTAL	18.4	20.0	17.3	26.4%	37.8%	45.7%
Number:						
1993	10,384	4,537	5,390			
1990	9,101	3,163	5,208			
1987	7,359	1,769	4,943			

[1]Includes those for whom core coursework could not be determined.

TABLE 6
ACT Composite Scores and College Preparatory Core Course Completion for White College-Bound High School Seniors 1987-1993

Estimated Family Income	1993 ACT Mean Composite Score			College Prep Core Course Completers		
	All[1]	Core	LT Core	1987	1990	1993
0-$5,999	19.3	21.0	18.1	28.8%	35.1%	40.3%
$6,000-11,999	19.9	21.5	18.7	30.8	39.2	43.7
$12,000-17,999	20.3	21.8	19.0	33.0	41.8	47.2
$18,000-23,999	20.6	22.0	19.2	33.5	44.6	49.6
$24,000-29,999	20.8	22.1	19.4	36.7	46.0	51.6
$30,000-35,999	21.0	22.3	19.6	38.4	47.8	53.4
$36,000-41,999	21.2	22.4	19.8	40.2	49.3	54.5
$42,000-49,999	21.5	22.7	20.0	42.7	52.2	57.1
$50,000-59,999	21.9	23.0	20.3	44.9	54.1	59.5
$60,000 & over	22.6	23.5	20.9	47.2	58.3	64.6
TOTAL	21.4	22.6	19.8	38.8%	49.1%	55.5%
Number:						
1993	625,242	342,884	275,294			
1990	605,361	290,929	301,253			
1987	610,780	234,118	369,995			

[1]Includes those for whom core course work could not be determined.

TABLE 7
ACT Composite Scores and College Preparatory Core Course Completion for Asian College-Bound High School Seniors 1987-1993

Estimated Family Income	1993 ACT Mean Composite Score			College Prep Core Course Completers		
	All[1]	Core	LT Core	1987	1990	1993
0-$5,999	17.7	18.8	16.4	41.6%	54.1%	56.1%
$6,000-11,999	18.9	19.7	17.7	46.1	59.4	62.6
$12,000-17,999	19.9	20.8	18.4	49.2	60.9	64.0
$18,000-23,999	20.5	21.4	18.9	50.8	61.9	65.3
$24,000-29,999	21.0	21.8	19.4	51.0	63.4	68.0
$30,000-35,999	21.6	22.3	20.0	55.4	62.8	68.7
$36,000-41,999	22.1	22.8	20.3	56.5	65.1	72.2
$42,000-49,999	22.6	23.3	20.9	55.7	66.7	71.1
$50,000-59,999	23.3	23.9	21.6	58.5	66.5	72.4
$60,000 & over	24.4	24.9	22.9	59.9	70.5	74.0
TOTAL	21.7	22.6	19.8	52.4%	63.6%	68.5%
Number:						
1993	24,754	16,600	7,649			
1990	19,081	11,734	6,714			
1987	13,885	7,070	6,411			

[1]Includes those for whom core coursework could not be determined.

TABLE 8
ACT Composite Scores and College Preparatory Core Course Completion for Mexican College-Bound High School Seniors 1987-1993

Estimated Family Income	1993 ACT Mean Composite Score			College Prep Core Course Completers		
	All[1]	Core	LT Core	1987	1990	1993
0-$5,999	16.4	17.9	15.4	22.8%	35.6%	38.9%
$6,000-11,999	17.4	18.6	16.4	28.6	40.0	46.8
$12,000-17,999	18.0	19.2	16.9	31.2	42.3	48.0
$18,000-23,999	18.1	19.1	17.1	31.0	43.2	50.7
$24,000-29,999	18.6	19.8	17.5	32.6	45.4	49.2
$30,000-35,999	19.0	20.2	17.7	35.2	49.1	52.0
$36,000-41,999	19.3	20.4	18.2	38.0	47.8	52.1
$42,000-49,999	19.8	20.8	18.5	41.0	50.9	56.7
$50,000-59,999	20.1	21.2	18.7	39.8	50.6	57.1
$60,000 & over	20.9	21.9	19.3	42.3	55.2	62.4
TOTAL	18.5	19.8	17.2	31.8%	44.2%	50.0%
Number:						
1993	27,713	13,764	13,753			
1990	22,806	9,770	12,349			
1987	17,451	5,407	11,614			

[1]Includes those for whom core coursework could not be determined.

TABLE 9
ACT Composite Scores and College Preparatory Core Course Completion for Other Hispanic College-Bound High School Seniors 1987-1993

Estimated Family Income	1993 ACT Mean Composite Score			College Prep Core Course Completers		
	All[1]	Core	LT Core	1987	1990	1993
0-$5,999	16.5	18.0	15.5	28.6%	35.8%	38.9%
$6,000-11,999	17.5	18.9	16.2	37.9	44.1	48.7
$12,000-17,999	18.1	19.2	17.0	39.9	49.3	52.6
$18,000-23,999	18.6	19.8	17.2	42.2	50.5	53.8
$24,000-29,999	19.3	20.4	17.8	45.7	51.3	58.2
$30,000-35,999	19.7	20.4	18.5	50.6	56.3	60.6
$36,000-41,999	20.5	21.5	19.0	51.1	57.6	60.1
$42,000-49,999	20.6	21.5	19.0	50.4	56.1	65.4
$50,000-59,999	21.2	22.2	19.2	56.4	60.8	66.0
$60,000 & over	21.9	22.5	20.4	56.5	64.4	70.1
TOTAL	19.3	20.5	17.6	44.0%	51.8%	57.0%
Number:						
1993	13,894	7,693	5,799			
1990	10,669	5,250	4,886			
1987	7,566	3,149	4,003			

[1]Includes those for whom core coursework could not be determined.

How Financial Aid Officers View the New Federal Methodology of Need Analysis

For several decades the formulas used by institutional financial aid officers to award need-based financial aid to students have been gradually "federalized." Following early formulas developed by aid officers and used by the College Scholarship Service in 1954, the federal government has, step-by-step, replaced the consensus of financial aid officers who work with students directly with federal formulas believed to serve federal policy objectives.

The first federal formula was the Pell Grant formula in 1972. The College Scholarship Service (and ACT) methodologies were combined into the Uniform Methodology in 1976, which became the Congressional Methodology in 1986, and most recently was combined with the Pell formula to become the Federal Methodology (FM) in the 1992 Reauthorization. As this federalization process has occurred, federal policy has eliminated the minimum student contribution, the parental contributions from home and family farm equity, and allowances for medical/dental expenses and elementary/secondary school tuitions.

Against this background, the National Association of Student Financial Aid Administrators surveyed a sample of its membership to determine how well the Federal Methodology met financial aid officers' evaluation criteria for awarding financial aid to students. Not surprisingly, many financial aid officers feel their goals of accurately and equitably measuring ability to pay while concurrently simplifying the aid application process have not been achieved.

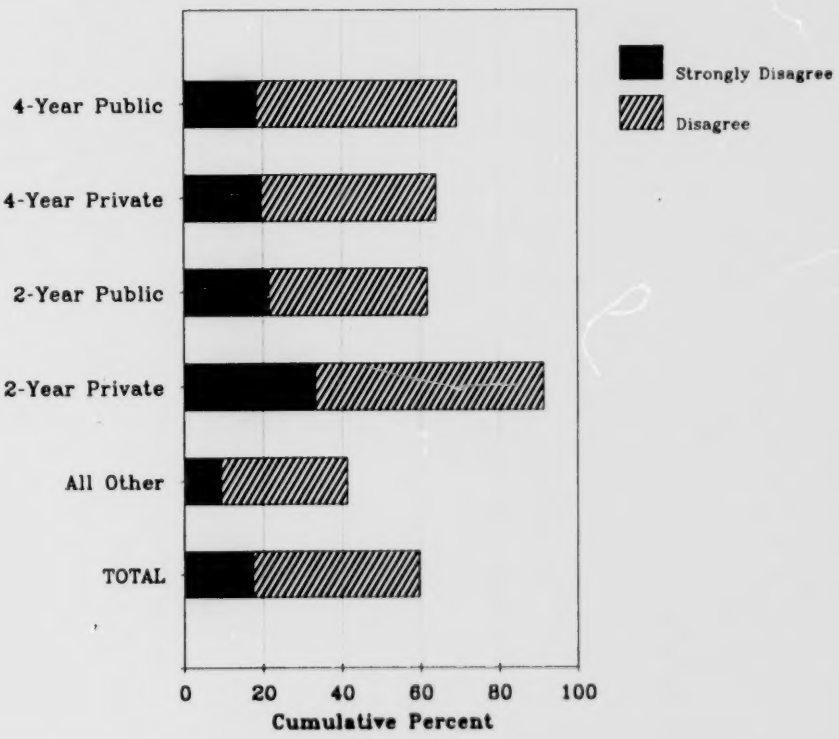
Among the major findings of the NASFAA survey are the following:

- About 70 percent agreed that the FM reinforces the primary responsibility of the dependent student to finance educational costs. About 78 percent agreed that the FM reinforces the primary responsibility of parents of dependent students to finance education. A similar proportion agreed that the FM reinforced the primary responsibility of the independent students as well.

- Only about 40 percent of financial aid officers feel that the FM accurately measured the dependent student's ability to pay, with public institution aid officers more likely to agree and private institution aid officers less likely to agree. A higher proportion (54 percent) felt that the FM accurately reflected parental ability to pay, although the range of agreement was from 72 percent at public 2-year colleges to 38 percent at Private 4-year institutions. Only 39 percent agreed that the FM accurately reflected independent student's ability to pay, with a range of 53 percent at private 4-years to 29 percent of public 2 year aid officers agreeing.

- Less than a third of the financial aid officers agreed that the FM is sensitive to each family's special or unusual circumstances. Private 4-

"The Federal Methodology adequately allocates federal student aid funds"



year institutions were least likely to agree.

- Professional judgement to override formula decisions increased by 71 percent under the FM. This is largely attributable to the elimination of the special conditions form and changes in the formula. The increase occurred primarily in public institutions.

- Only 30 percent of the financial aid officers agreed that the FM adequately allocates federal student aid funds.

- About 56 percent of the respondents agreed believe that the FM assures that the lowest income students are targeted for funding.

- When asked if the FM combined with professional judgement was an improvement over the Congressional Methodology for allocating federal student aid funds which it replaced, 50 percent agreed, 38 percent disagreed, and 12 percent were undecided.

- About 68 percent of the financial aid officers agreed that the FM formula simplified the need application process for students and their parents.

- Of those with institutional funds, 60 percent of the private 4-year institutions use another needs analysis compared to 34 percent of public 4-year and 23 percent of public 2-year institutions.

- About three-fourths of private 4-year and 2-year institutions collect additional information to award institutional funds, compared to less than half of publics. The type of additional data elements collected are: prior schools attended (87%), family member grid (60%), estimated current year income (54%), medical/dental expenses (49%), home equity (42%), other asset information (39%), and elementary/secondary school tuition (39%).

In a presentation to the NASSGP Financial Aid Research Conference in April, Dr. Janet Hunter of Knox College concluded:

> The results of the survey indicate that many aid administrators feel that Federal Methodology has not achieved the goals of accurately and equitably measuring ability to pay while concurrently simplifying the application process. There are striking differences between the responses of administrators at public vs. private institutions. Private institution respondents were more likely to disagree that Federal Methodology met the evaluation criteria for awarding aid to undergraduate students. Their institutions were more likely to use another methodology to determine financial need for institutional funds.

For further information, contact Tim Christensen at NASFAA at 202/785-0453 or Janet Hunter at Knox College 309/343-0112, ext. 131.

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Postsecondary Education
OPPORTUNITY

The Mortenson Research Letter on Public Policy Analysis of Opportunity for Postsecondary Education

Number 26 **Iowa City, Iowa** **August 1994**

Passing . . . *. . . the Buck*

Restructuring Higher Education Finance: Shifting Financial Responsibility from Taxpayers to Students

Summary

Since 1979 there has been a substantial shift in responsibility for financing higher education from taxpayers to students. By 1992 the federal taxpayers' share was $4 billion less than it had been in 1979. The state and local government taxpayers' share was $7 billion less. The share borne by students increased by $11 billion between 1979 and 1992. This shift raises a serious affordability issue for students and their families remaining to be addressed in public policy.

Five sets of national data are examined to identify when the share of federal, state and local government resources allocated to higher education reached their peaks, and to measure by how much these shares have declined between the peak and the most recent year of available data. Meta-analysis of the results indicates that the share of federal government resources allocated to higher education peaked between 1978 and 1982, and the average of the most recent data indicates that the federal government is now allocating about 72 percent of this peak allocation effort. At the state level, the share of state government resources allocated to higher education peaked between 1968 and 1982, and the average of the most recent data indicates that states are now allocating to higher education about 81 percent of that peak allocation effort. At the local government level, based on a single study, the peak was reached at or before 1976, and the most recent level of effort was 72 percent of the 1976 peak.

As social resource commitments to higher education have declined, students have assumed a greater share of the costs of higher education. Using 1980 as a reference year, a meta-analysis of the most recent data indicates that individuals are now paying about 142 percent of the 1980 level of effort.

This shift in responsibility for financing higher education has clear implications for the affordability of higher education to students and their families. Of those freshmen enrolled in higher education in 1993, between nine and 30 percent (depending on institutional type and control) came from families with incomes so low that they could not afford to pay any costs of attendance from their own resources--they were totally dependent on student financial aid. Between 44 and 66 percent of all freshmen (depending on attendance costs at the type and control of the institution where the student is enrolled) came from families with sufficient incomes to pay for a part of their college attendance costs from their own resources, but they still needed financial aid to pay the remainder of (and any increases in) their costs of attending college. Between 18 and 38 percent of all freshmen came from families with enough income that they could pay all college attendance costs from their own resources. They did not need financial aid to attend college.

The "one-price-fits-all model" of public higher education finance does not serve this diverse population well. Many students receive more assistance--through state subsidized tuitions--than they need. The rest need financial aid to attend college and pay the increasing costs of attendance resulting from the shift in responsibilities for financing higher education from taxpayers to students and their families. This suggests that governments should focus available social resources on the financially needy population as the shift in responsibilities for financing higher education from social to private sources continues.

Introduction

The financing of public higher education has always been a shared responsibility between students and their families on one side, and state and sometimes local governments on the other. Then, beginning in the late 1950s, the federal government joined this arrangement to assist students with financial need to pay college attendance costs. These relationships have ebbed and flowed over time as demographic, social, political and economic forces have increased or decreased the efforts and shares of responsibilities of the participants.

The current trend was established about 15 years ago. *This trend is to shift responsibility for paying for higher education from taxpayers at all levels of government to students and their families.*

This shift has clear and immediate consequences for the affordability of higher education: the historical one-price-fits-all model of public higher education finance cannot work when only about a quarter of the population can afford to attend a public four-year college or university without adequate and appropriate student financial aid.

This paper has three sections:

- The first section examines data from a variety of sources to describe, quantify and date the retrenchment in social resources--state, federal and local--provided for higher education, and the increased costs to students and their families that result.
- The second section looks at who can and who cannot afford to pay these higher costs.
- This paper concludes with a brief discussion of government efforts to assist students and their families to pay the college attendance costs that result from the shift in financial responsibility from society to individuals.

A. Reduction in Social Resources for Higher Education

Data from five sources all identify a steady and substantial reduction in the share of social resources provided to higher education over about the last fifteen years. Mainly we concentrate here on data from the National Income and Product Accounts (NIPA), collected and reported by the Department of Commerce, to highlight the decline in social resources committed to higher education from the federal, state and local government levels, and the increased share of higher education resources provided by individuals. The NIPA data portray the same picture described by other sources, but in a more comprehensive, extensive and direct manner than are possible with the other available data sets.

The other data sets examined and that provide confirming evidence to support the thesis of redistribution of responsibilities are: 1) state tax fund appropriations (expressed as per $1000 of personal income) collected by the Center for Higher Education at Illinois State University, 2) state (and local) government revenues and expenditures collected by the Census Bureau, 3) institutional revenues collected by the National Center for Education Statistics, and 4) state general fund appropriations collected by the National Conference of State Legislatures.

National Income and Product Account Analysis

The National Income and Product Accounts is a system of national economic accounting designed to measure the total income and production of a country, in this case the United States. The concept of a national product is the total market value of goods and services produced for final use. National product is the value of final outputs, and when incomes arising from production are developed they are national income.

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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement

This research letter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this research letter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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The NIPA tables for the United States describe the expenditures on higher education in three broad categories: federal government, state and local government, and individuals. The NIPA tabulations are structured around the *instructional* mission of higher education. Federal expenditures are limited to financial aid and some direct institutional support, but exclude research. State and local government expenditures include appropriations to institutions, but exclude auxiliary enterprises such as dormitories, food service, hospitals, athletic activities, etc. Personal expenditures are limited to the tuition paid by students and thus exclude books, food, housing, and other costs of living while attending college. Public and private higher education are indistinguishable in the NIPA data.

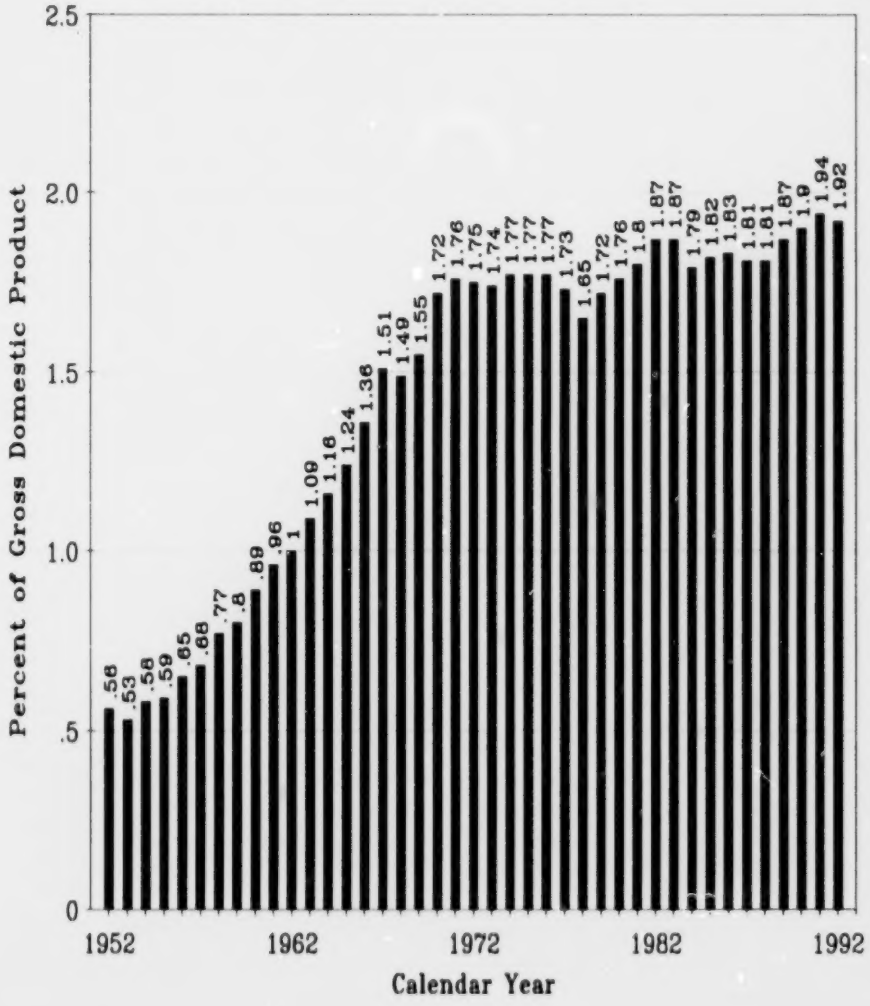
For calendar year 1992, higher education expenditures of the federal, state and local governments and by individuals totaled $115.7 billion under NIPA definitions. State (and local) governments provided 47 percent of funds for higher education in calendar year 1992, individuals provided 44 percent, and the federal government provided 9 percent of the total.

As a measure of the commitment of our country's resources for higher education, we calculate the share of Gross Domestic Product (GDP) provided from government and individual sources for higher education over the last four decades. Higher education's share of GDP increased sharply between 1952 and 1970, from 0.56 percent to 1.72 percent of GDP. However, after 1970 higher education's share increased only slightly--by 0.2 percent--to 1.92 percent of GDP by 1992.

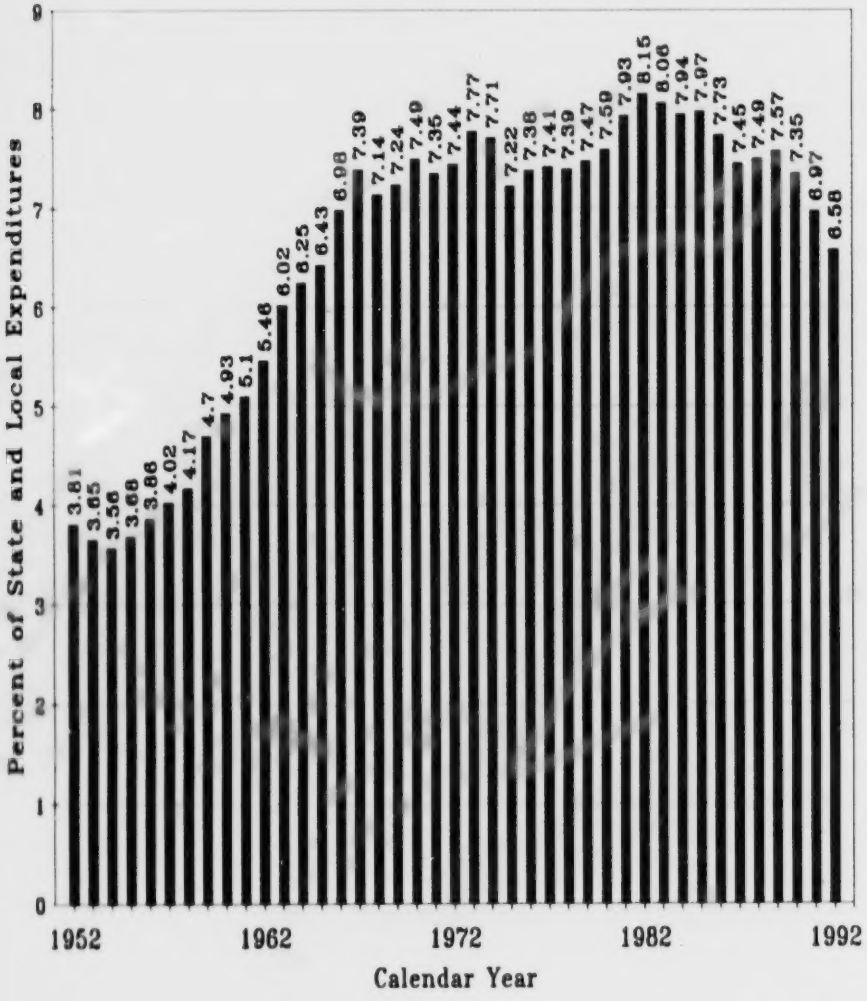
While higher education's share of Gross Domestic Product increased only slightly between 1970 and 1992, higher education enrollments' share of the U.S. population continued to increase after 1970. Between 1952 and 1970, the share of the population enrolled in higher education increased from 1.36 percent to 4.21 percent. Between 1970 and 1992 the enrollment share of population continued to increase to 5.71 percent by 1992. This increase was largely unfunded by increased resources from any source: compared to 1970, higher education enrollments (as a share of the U.S. population) increased by 35.6 percent while resources provided by government and individuals (as a share of GDP) increased by 11.6 percent. Since 1970 higher education has become more productive.

More important to our analysis here, however, is the level of effort--measured by share of available resources--provided by each of the three major participants in higher educational finance as defined in the NIPA accounts. Higher education's

Higher Education's Share of Gross Domestic Product 1952 to 1992



Higher Education's Share of Expenditures of State and Local Governments 1952 to 1992



share of state and local government expenditures increased from 3.56 percent in 1954 to a peak of 8.15 percent in 1982, and has since dropped off to 6.58 percent in 1992. The 1992 share was 80.7 percent of the 1982 share of state and local government expenditures.

A similar pattern emerges from the NIPA data on the federal effort in financing higher education. Until 1960 NIPA recognized no federal government expenditures for higher education. Then in 1960 0.22 percent of all federal expenditures were allocated to higher education. This rose to a peak of 0.95 percent in 1981, and has since dropped off to 0.70 percent by 1992. The 1992 share of federal expenditures was 73.7 percent of the 1981 share.

Thus, at the federal, state and local levels of government, a declining share of social resources has been allocated to higher education since 1979.

A different picture emerges from NIPA data with respect to personal consumption expenditures for higher education. In 1952 0.46 percent of all personal consumption went for higher education. This proportion increased almost steadily--except for a brief period in the mid-1970s--to a peak of 1.23 percent by 1992. This growth is partly attributed to the growing share of the U.S. population enrolled in higher education and hence is paying tuition, and partly attributed to the increase in tuition charges resulting from reduced state government support.

What these data portray is a shift in responsibilities for financing higher education, from taxpayers at all levels of government to students and their families through their tuition payments.

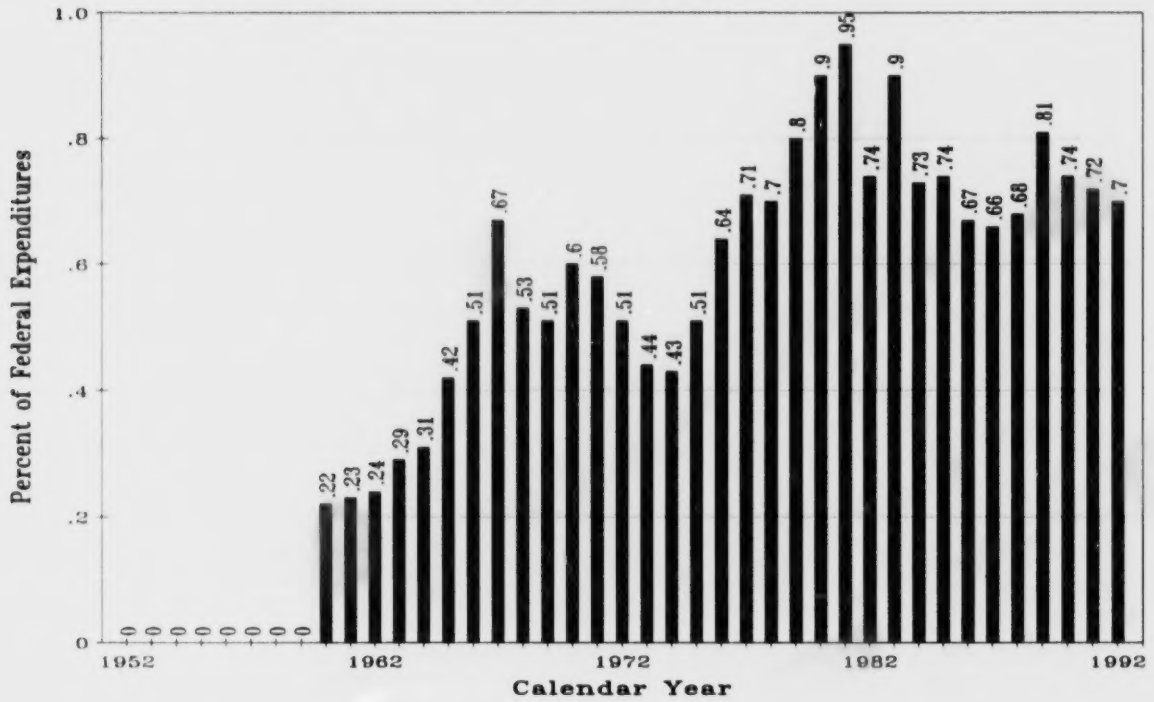
Three points summarize the shifting responsibilities for paying for higher education that have occurred between 1952 and 1992.

- The proportion of the costs of higher education borne by individuals dropped from 51.3 percent in 1952 to a low of 34.4 percent in 1979. Since 1979 the proportion of costs of education borne by individuals through tuition payments has increased steadily to 43.9 percent by 1992.

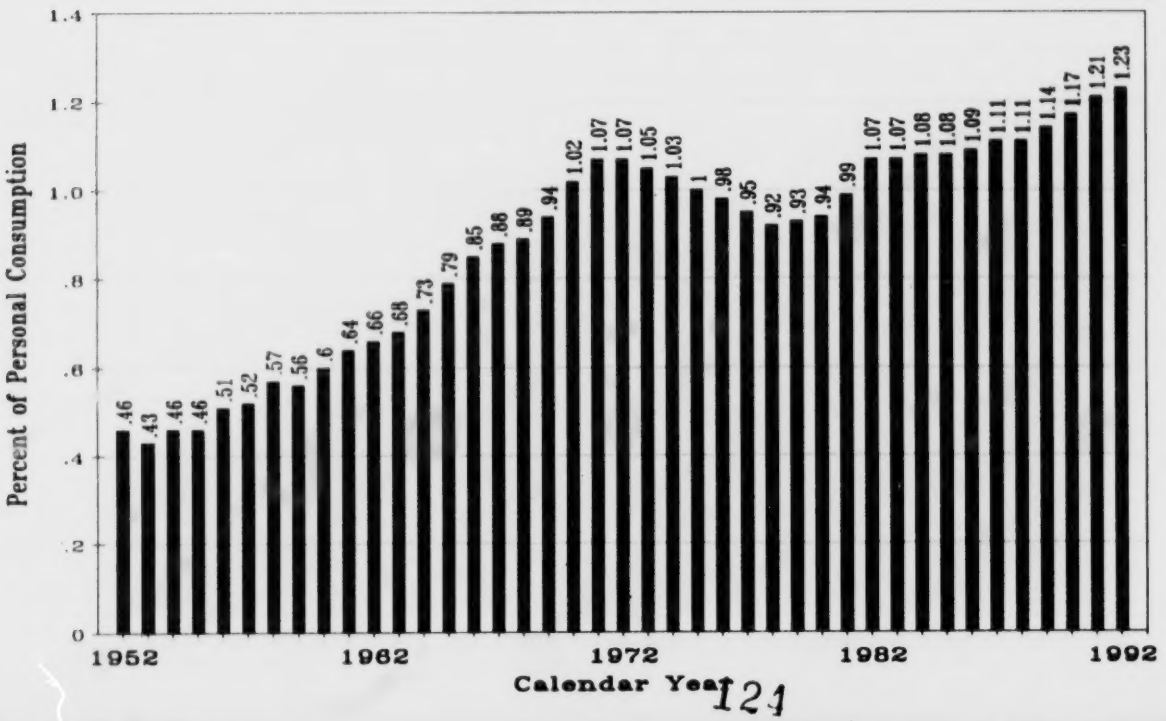
- The share paid by state and local governments increased from 48.7 percent in 1952 to a peak of 57.7 percent in 1974 and has since dropped to an all-time low of 47.2 percent in 1992.

- The share paid by the federal government stood at zero between 1952 and 1959, then went to 4.4 percent in 1960. In 1980 and 1982 the federal share peaked at 12.2 percent, dropped to 8.5

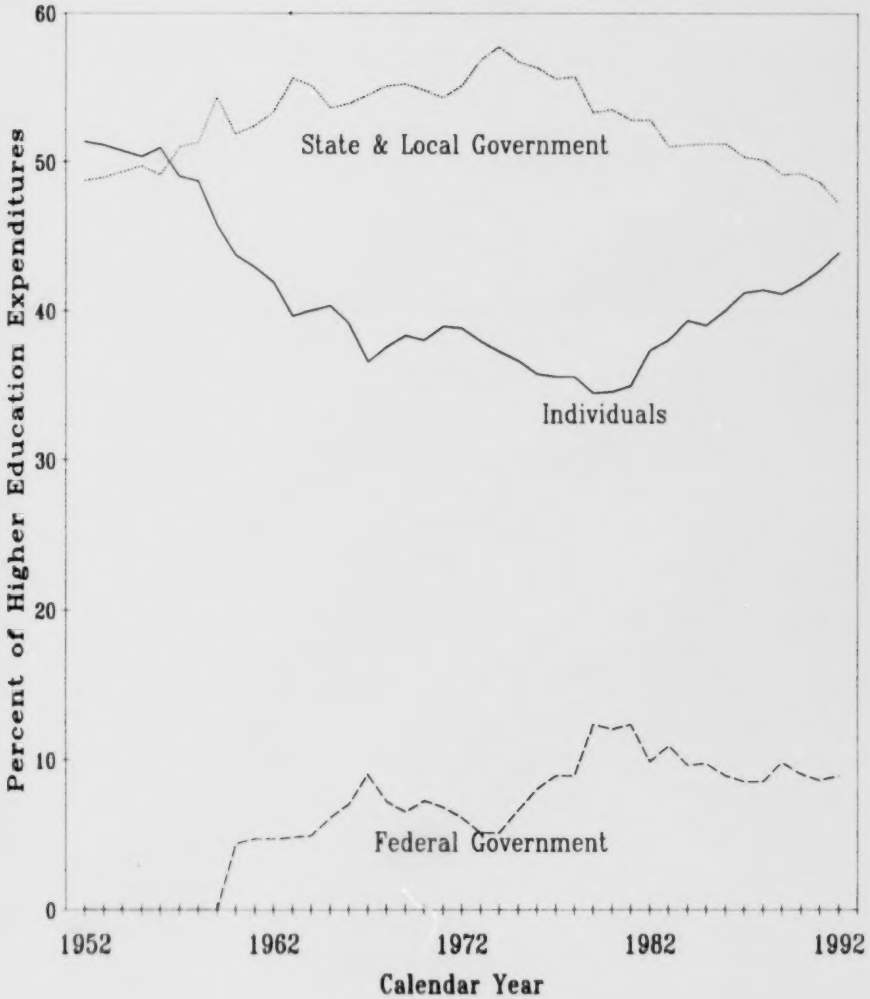
Higher Education's Share of Expenditures of the Federal Government 1952 to 1992



Higher Education's Share of Personal Consumption Expenditures 1952 to 1992



Distribution of Responsibilities for Financing Higher Education 1952 to 1992



stood at 8.9 percent in 1992.

These patterns indicate shifting responsibilities: total taxpayer support peaked in 1979 and has dropped continuously since then. The state and local government share peaked in 1974, and the federal share peaked in 1980 and 1982. This increase in taxpayer support for higher education reduced the financial responsibilities of tuition paying students and their families from 1952 through 1979.

However, since 1979 students and their families have assumed a steadily growing share of the responsibility for paying for higher education. If recent trends continue the 1994 NIPA data will show students and their families paying a larger share of the costs of education than will state and local government taxpayers for the first time in 35 years.

State Tax Fund Appropriations

The "Chambers" survey of state tax fund appropriations for higher education from Illinois State University provides a second source of information to examine the question of state taxpayer support for higher education. This is primarily support for public institutions. The data on state tax fund appropriations for operating expenses of higher education are collected by the Center for Higher Education at Illinois State University. These data have been published by *The Chronicle of Higher Education* with some analytical additions by the *Chronicle* such as appropriations per $1000 of personal income. We use the *Chronicle*'s form of the data to highlight again the reduction in social resource support for higher education.

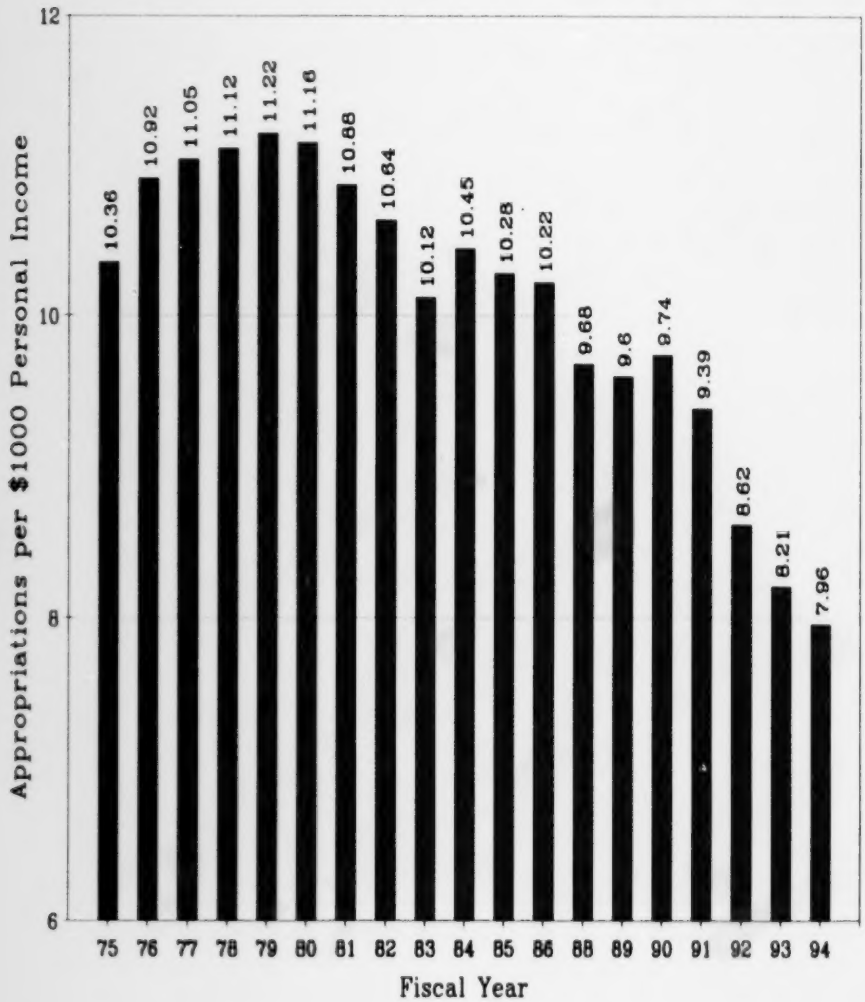
The chart on the following page shows the national totals of state tax funds appropriated for higher education per $1000 of personal income between 1975-76 and 1993-94. The pattern is one of growth from the beginning of the time-series to a peak in 1978-79. After that state tax fund appropriations per $1000 of personal income have dropped off sharply. By 1993-94 the state tax support was 70.9 percent of the peak reached in 1978-79.

Unlike the NIPA data, state tax appropriations are tabulated by state. When combined with state-specific personal income data, we can examine the trends and patterns in higher education support for each state. The following spreadsheet presents these data. The results are significant:

- In each and every state, state tax appropriations per $1000 of personal income for higher education declined between 1978-79 and 1993-94.

The declines have averaged about 29 percent, or $3.26 per $1000 of personal income, between 1978-79 and 1993-94. The declines have occurred during economic expansion and recession, under democrats and

Appropriations of State Tax Funds for Operating Expenses of Higher Education per $1000 of Personal Income 1974-75 to 1993-94



republicans, in states with both high and low historical levels of support for higher education. The pervasiveness of the reduction in state tax support for higher education is a key finding.

The declines varied greatly between states. At one extreme states like **Maine, New Mexico, Wyoming, Arkansas** and **Oklahoma** have struggled to maintain historical levels of support for higher education. These states have reduced state tax fund appropriations per $1000 of personal income by less than 10 percent between 1978-79 and 1993-94. At the other extreme states like **Vermont, Rhode Island, Virginia** and **Colorado** have reduced their state tax support for higher education by more than 40 percent over the last 15 years. **California** has reduced its state tax support by more than 50 percent during this period.

Census Bureau Data on Governmental Finances

The Census Bureau's annual surveys published in the *Government Finances* series provide additional insight into shifting responsibilities for financing public higher education in the states. Thirty fiscal years worth of comparable data are available from 1963 through 1992. Excluding capital outlays and auxiliary enterprises, the functional balance is the traditional educational mission of public higher education.

The expenditures of public higher education institutions as a proportion of state tax revenues from fiscal years 1963 through 1992 are shown in the chart on the following page. The pattern is one of sharp growth from 12.9 percent in FY1963 at the beginning of the time series to a peak of 17.9 percent in FY1968 followed by a bumpy, cyclical decline through the present. The smallest share was reached in FY1989 at 12.5 percent. The FY1992 share was 74.1 percent of FY1968 share.

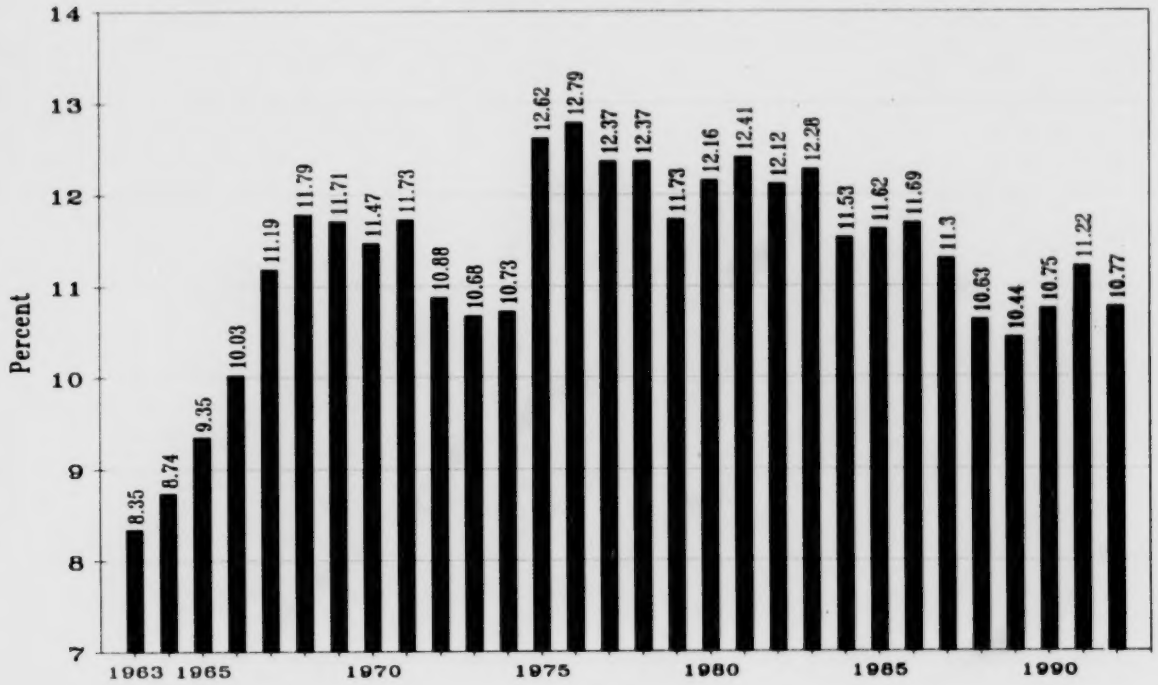
Institutional charges have been used aggressively by public institutions of higher education to offset the reduction in state tax revenue support for higher education. Between FY1963 and FY1981 the proportion of current operations expenditures covered by institutional charges grew modestly, from 22.7 percent of operational expenditures to 24.7 percent. However, between FY1981 and FY1992, institutional charges as a proportion of current operations expenditures increased to 35.9 percent. The annual rate of increase from FY1982 to FY1992 was nine times the average annual rate of increase between FY1963 and FY1981. (The Census Bureau data offer further opportunities for fiscal analysis of higher education. The major analyses are by state, with capital outlay and

Appropriations of State Tax Funds for Operating Expenses of Higher Education per $1000 of Personal Income

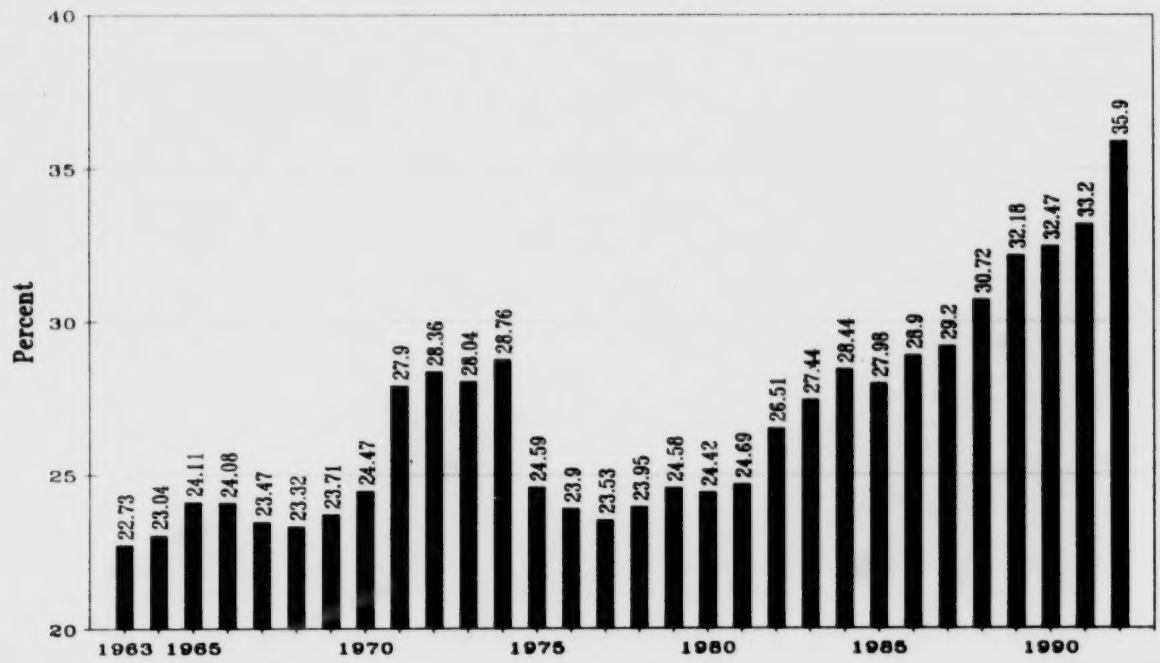
State	1974-75	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	Change: 1978-79 to 1993-94 Dollars	Change: 1978-79 to 1993-94 Percent
Alabama	$11.54	$16.03	$16.62	$18.04	$16.02	$16.29	$14.31	$12.64	$11.67	$13.73	$15.69	$12.42	$15.65	$14.73	$15.45	$13.02	$12.98	$13.00	$-5.04	-27.9%
Alaska	18.42	19.50	16.09	16.64	16.42	17.98	23.84	25.91	20.85	20.26	26.98	16.55	17.21	17.59	15.94	15.05	14.49	13.67	-2.97	-17.8%
Arizona	15.80	15.52	16.38	14.60	13.41	13.59	12.81	11.83	11.09	11.94	11.96	11.00	11.23	10.91	10.92	10.31	9.74	9.29	-5.31	-36.4%
Arkansas	10.24	11.76	12.12	11.81	13.00	12.41	11.05	10.73	9.87	11.93	12.99	10.63	10.42	10.29	10.28	11.49	11.87	10.93	-0.88	-7.5%
California	12.01	13.10	12.75	13.47	14.14	13.85	12.82	11.35	8.83	11.42	11.34	10.41	10.17	10.81	10.53	9.14	7.64	6.57	-6.90	-51.2%
Colorado	13.64	13.60	13.28	12.66	11.41	10.44	10.53	10.53	9.90	9.57	9.23	8.86	9.25	9.29	8.88	8.40	8.10	7.46	-5.20	-41.1%
Connecticut	7.40	6.76	7.17	8.26	7.68	7.93	7.12	6.29	6.15	6.48	6.32	6.55	6.84	6.22	6.08	6.01	5.68	5.56	-2.70	-32.7%
Delaware	11.18	11.50	10.80	10.91	10.71	11.76	11.69	11.58	10.64	11.07	10.90	10.67	10.00	9.91	9.84	9.03	8.65	8.23	-2.68	-24.6%
Florida	10.91	9.24	9.66	9.48	9.37	9.32	9.05	8.75	8.06	8.29	8.07	7.99	7.87	7.66	7.30	6.15	5.61	5.99	-3.49	-36.8%
Georgia	11.29	10.60	10.98	11.42	11.30	11.06	11.28	10.73	10.18	10.28	9.86	9.25	9.13	9.14	9.30	7.88	8.24	8.29	-3.13	-27.4%
Hawaii	12.74	17.25	17.69	16.80	15.95	16.20	15.83	17.10	15.17	15.14	15.40	16.10	16.15	15.90	14.49	14.17	14.21	14.70	-2.10	-12.5%
Idaho	14.78	16.57	16.45	16.34	13.58	13.74	12.47	12.13	10.94	11.65	12.06	12.37	12.24	12.46	13.24	12.70	12.09	11.42	-4.92	-30.1%
Illinois	9.45	9.00	8.97	9.34	8.76	8.77	8.28	7.76	7.73	8.29	8.27	7.40	7.35	8.21	7.85	7.42	7.18	7.07	-2.27	-24.3%
Indiana	9.32	10.73	10.68	10.42	9.93	9.93	9.81	9.13	8.89	9.51	9.43	9.75	9.82	9.82	9.93	9.59	9.28	8.81	-1.61	-15.5%
Iowa	9.65	12.77	13.63	13.77	13.10	13.05	12.51	12.55	11.88	12.62	11.25	11.60	11.87	12.09	13.12	11.77	12.45	11.94	-1.83	-13.3%
Kansas	10.47	12.73	12.64	13.39	12.91	11.88	11.78	12.11	10.88	11.51	10.89	10.10	10.21	11.31	11.07	9.91	10.19	9.78	-3.61	-27.0%
Kentucky	12.58	12.12	11.79	13.27	12.96	11.80	12.72	11.79	11.97	11.69	11.29	11.92	11.53	11.51	11.86	11.59	10.72	9.97	-3.30	-24.9%
Louisiana	12.54	11.56	11.68	12.03	12.39	13.07	12.76	12.24	10.26	12.19	11.87	10.21	9.44	9.65	10.35	9.38	9.70	8.34	-3.69	-30.7%
Maine	10.89	8.33	7.89	7.87	8.34	8.11	7.48	7.44	6.29	7.23	8.07	9.37	9.81	9.71	9.86	8.83	8.03	7.71	-0.16	-2.0%
Maryland	8.13	9.68	9.33	9.34	9.34	9.50	8.73	8.84	8.14	8.64	8.47	8.17	8.46	9.14	8.97	7.69	7.31	6.58	-2.76	-29.6%
Massachusetts	6.54	6.75	6.58	6.51	6.88	6.29	6.26	6.42	5.38	8.39	8.30	8.66	7.75	6.66	5.32	4.30	4.63	5.79	-0.72	-11.1%
Michigan	10.44	10.51	10.74	10.55	10.37	9.43	9.19	8.71	8.54	9.67	10.02	9.72	9.45	9.21	9.19	9.02	8.81	8.33	-2.22	-21.0%
Minnesota	9.71	14.20	15.54	13.88	14.53	13.28	12.96	11.82	13.07	12.70	13.11	12.82	12.74	13.19	13.38	12.11	11.39	11.02	-2.86	-20.6%
Mississippi	16.12	16.21	17.50	18.22	17.59	17.41	18.08	15.81	16.80	15.58	17.49	14.20	15.76	14.87	14.43	12.49	12.66	12.43	-5.79	-31.8%
Missouri	8.59	9.02	9.13	8.92	8.81	8.80	7.97	7.51	6.98	7.37	7.46	7.20	7.35	7.60	7.58	6.36	6.39	6.17	-2.75	-30.8%
Montana	11.33	11.62	12.20	11.81	11.42	11.01	12.43	12.77	12.73	13.22	12.45	10.87	10.54	10.57	10.28	10.81	9.93	8.73	-3.08	-26.1%
Nebraska	10.51	13.00	13.88	13.40	12.72	12.16	12.70	11.60	11.35	11.91	10.77	10.35	11.10	12.27	13.23	12.26	12.71	11.77	-1.63	-12.2%
Nevada	9.44	10.76	10.42	9.91	9.13	8.41	7.66	7.35	7.02	6.99	7.78	7.58	7.36	7.94	7.63	8.23	8.17	6.87	-3.04	-30.7%
New Hampshire	4.95	5.26	4.63	4.97	4.65	4.44	4.67	3.77	2.93	3.70	3.90	4.09	3.91	3.53	3.25	3.25	3.08	3.20	-1.77	-35.6%
New Jersey	6.73	6.41	6.29	6.33	6.23	6.08	5.76	5.55	5.31	5.56	7.31	7.14	7.23	6.73	5.74	5.87	5.91	5.93	-0.40	-6.3%
New Mexico	14.40	14.98	15.40	16.42	15.78	15.27	16.79	16.26	14.83	16.37	16.06	14.37	15.09	15.75	16.71	16.12	16.10	15.98	-0.44	-2.7%
New York	11.13	10.52	10.23	10.52	10.57	10.23	10.27	9.96	9.66	10.27	10.02	9.66	9.69	9.21	8.31	6.94	6.63	6.82	-3.70	-35.2%
North Carolina	14.93	15.11	15.46	15.91	15.82	15.96	16.00	15.41	15.23	16.13	16.13	16.30	15.57	15.71	14.86	13.34	13.58	13.25	-2.66	-16.7%
North Dakota	8.71	13.38	16.28	15.14	16.18	13.99	18.97	16.14	14.12	13.70	14.68	13.95	13.51	16.34	14.49	15.03	14.70	13.14	-2.00	-13.2%
Ohio	7.09	8.03	8.04	7.98	7.93	7.70	6.82	7.61	7.41	7.92	8.17	8.41	8.38	8.46	8.51	7.66	7.08	7.08	-0.90	-11.3%
Oklahoma	9.17	10.69	10.97	11.02	11.13	11.02	11.78	12.59	11.22	10.17	11.08	9.52	10.11	10.49	11.16	11.15	11.30	10.19	-0.83	-7.5%
Oregon	12.08	13.38	13.60	12.25	12.62	11.09	10.27	9.07	9.61	9.85	10.05	9.73	9.44	9.61	9.36	9.37	9.45	7.81	-4.44	-36.2%
Pennsylvania	8.17	9.39	8.85	8.46	8.12	7.39	7.36	7.08	5.83	7.23	7.26	6.94	6.98	6.99	6.84	6.67	6.01	6.18	-2.28	-27.0%
Rhode Island	9.99	11.97	11.37	10.48	10.23	9.91	9.50	9.41	9.16	9.44	8.95	8.88	9.05	8.62	7.88	6.15	6.16	5.62	-4.86	-46.4%
South Carolina	17.06	16.15	15.49	16.38	16.31	16.65	15.89	14.69	13.82	15.04	15.13	13.66	14.02	13.66	13.47	11.97	11.50	10.18	-6.18	-37.8%
South Dakota	9.98	11.41	11.70	11.09	10.54	9.97	9.64	8.83	7.81	8.45	7.93	8.85	8.70	9.46	9.34	8.85	9.24	9.22	-1.87	-16.9%
Tennessee	10.05	9.80	10.20	11.28	11.15	10.51	10.05	9.61	9.14	10.62	11.15	11.09	10.78	10.71	10.25	8.93	9.16	9.06	-2.22	-19.7%
Texas	9.44	13.33	13.56	11.94	13.08	12.46	13.99	12.85	12.84	12.87	10.97	9.92	9.65	10.68	9.67	9.90	9.37	9.85	-2.09	-17.5%
Utah	16.08	17.34	17.83	17.58	16.93	16.35	15.54	15.56	14.10	15.54	15.52	14.07	13.60	13.21	13.25	13.21	13.36	12.84	-4.74	-27.0%
Vermont	10.70	8.62	8.92	9.41	8.46	8.43	8.44	8.38	7.92	7.96	7.80	7.00	6.87	7.03	6.45	5.64	5.38	5.03	-4.38	-46.5%
Virginia	10.31	11.00	10.36	12.08	11.24	11.42	10.81	10.97	9.84	10.53	10.27	10.27	10.59	10.42	9.34	8.43	7.40	7.03	-5.05	-41.8%
Washington	13.15	14.00	15.48	13.81	14.59	12.46	11.66	10.47	11.01	10.82	10.59	10.13	10.16	10.32	10.00	9.74	9.31	8.81	-5.00	-36.2%
West Virginia	12.53	12.91	12.71	13.31	12.88	12.27	12.60	11.81	11.41	12.23	12.27	11.66	12.08	11.42	11.46	11.29	11.05	10.69	-2.62	-19.7%
Wisconsin	15.08	13.94	14.17	13.53	13.30	12.76	12.06	11.56	11.69	11.46	11.02	10.60	10.42	10.55	10.54	10.02	10.16	9.76	-3.77	-27.9%
Wyoming	14.67	14.74	16.54	15.31	14.12	15.79	16.04	16.94	16.64	16.45	17.65	17.61	18.43	17.81	17.54	16.93	15.69	14.74	-0.57	-3.7%
All States	$10.36	$11.05	$11.12	$11.22	$11.16	$10.88	$10.64	$10.12	$10.45	$10.28	$10.22	$9.68	$9.60	$9.74	$9.39	$8.62	$8.21	$7.96	$-3.26	-29.1%

Postsecondary Education OPPORTUNITY, April 1994

Proportion of State Tax Revenues for Operation of Public Higher Education Institutions 1963 to 1992



Proportion of Current Operations Expenditures Covered by Institutional Charges in Public Higher Education Institutions 1963 to 1992



auxiliary enterprise also possible.)

Higher Education General Information Survey

The Higher Education General Information Survey's (HEGIS) financial reports (now called IPEDS) have been collected and reported by the National Center for Education Statistics in the current format since 1975-76. In this analysis we exclude revenues from auxiliary enterprises and other sources. Our analysis is limited to revenues from students, government and gifts. When these data are analyzed the usual pattern emerges: decreasing shares of institutional revenues are coming from federal, state and local governmental sources, and increasing shares coming from tuition charges and gifts.

Public higher education revenues from governments generally peaked in the late 1970s and have dropped through 1991-92, which is the most recent published data.

- From state governments, revenues peaked in 1979-80 at 58.9 percent of public institutions' revenues, and have since dropped to 51.6 percent by 1991-92.
- From the federal government revenues peaked in 1977-78 at 20.2 percent and have since dropped to 14.2 percent.
- From local governments revenues peaked in 1975-76 at 6.9 percent of the total and were 5.0 percent in 1991-92.

Tuition revenues have increased as government support has decreased. From 15.9 percent in 1979-80, tuition revenues have increased to 23.0 percent by 1991-92. Similarly, private gifts have increased from 2.8 percent in 1975-76 to 5.3 percent by 1991-92.

Institutional revenues fund not only the education of students in public colleges and universities, but research and community service as well. If we assume that all tuition revenues are used for the education of students, and that other expenditures are prorated between education, research and community service, then we can calculate the share of the costs of educating students in public colleges and universities that are paid by students through tuition charges.

As shown in the chart on the following page, tuition revenues in public colleges and universities covered about 16 percent of the costs of educating students in the late 1950s and early 1960s. Since then, tuition's coverage of costs of educating students has increased to 30.5 percent by 1992.

The rate of increase jumped sharply between 1962 and 1972, and again between 1980 and 1992. The increase from 28.1 percent in 1991 to 30.5 percent in 1992 was the largest single year increase in the nearly 40 year history of available data.

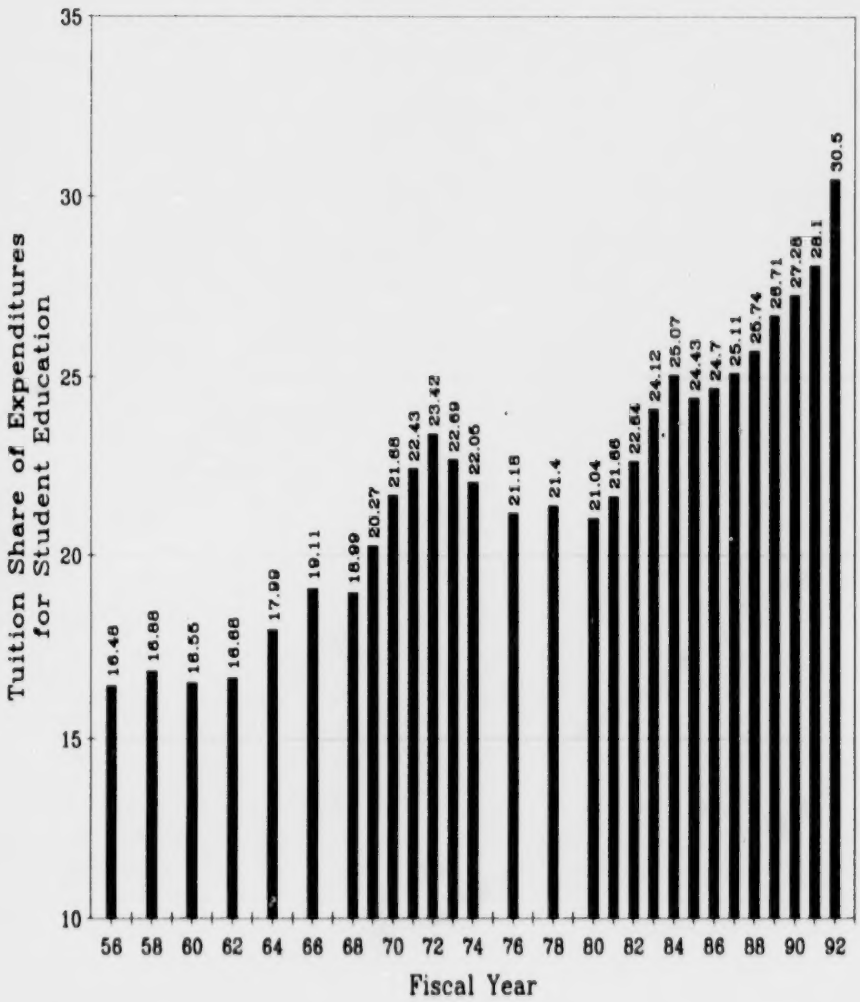
Despite the sharp increases in the contribution of tuition revenues to the costs of educating students in public colleges and universities, students in public institutions still pay a far smaller share of the costs of their own educations than do students in private institutions. Using identical cost allocation formulas, in 1992 students in public institutions paid for 30.5 percent of the costs of their educations compared to 71.2 percent in private colleges and universities. Despite the declining shares of revenues from government in public institution revenues, taxpayers--especially at the state level--still pay by far the largest share of the costs of educating students in public institutions.

The cost shift is barely perceptible in private colleges and universities. During the last five years, when the share of costs of educating students in public institutions has increased by about 5 percent, the share borne by students in private institutions has increased by about 1.3 percent. In fact in private institutions tuition's

Current Fund Revenues of Public Institutions of Higher Education (Excluding Sales and Services, and Other Sources) 1975-76 to 1991-92

Year	Current Fund Revenue (million)	Tuitn and Fees	Fedrl	State	Local	Gifts	Endw
1976	$21,655	16.1%	18.5%	55.2%	6.9%	2.8%	0.4%
1978	$25,153	16.5	20.2	57.4	6.5	3.1	0.5
1980	$30,514	15.9	16.6	58.9	4.7	3.2	0.6
1981	$33,724	16.5	16.4	58.3	4.8	3.3	0.6
1982	$36,443	17.5	14.7	58.7	4.8	3.5	0.7
1983	$38,828	18.8	13.8	58.1	4.8	3.9	0.7
1984	$41,291	19.4	13.6	57.6	4.7	3.9	0.8
1985	$46,290	18.7	13.6	58.3	4.7	4.0	0.7
1986	$50,346	18.7	13.6	58.0	4.6	4.2	0.8
1987	$53,044	19.2	13.6	57.4	4.8	4.3	0.7
1988	$56,947	19.6	13.5	57.0	4.8	4.4	0.6
1989	$62,081	20.0	13.6	56.1	4.9	4.7	0.7
1990	$67,138	20.6	13.7	55.2	4.9	5.0	0.7
1991	$70,875	21.5	13.8	54.0	5.0	5.2	0.6
1992	$75,766	23.0	14.2	51.6	5.0	5.3	0.8

Tuition Share of Expenditures for Student Education in Public Higher Education Institutions Fiscal Years 1956 to 1992



contribution peaked in 1990 and has declined since then.

National Conference of State Legislatures

The fifth data source used to illustrate the decline in social resource allocation to higher education is the annual survey of state legislative appropriations compiled by the fiscal affairs staff of the National Conference of State Legislatures in Denver.

This is a relatively short time-series --a little over a decade long--and does not include information on tuition charges. However, the NCSL data are especially useful in that they illustrate which competing demands for state tax resources are displacing higher education's historic priority in state budgeting and finance.

For the last five years states have assigned higher budget priorities to Medicaid (health care for poor) and to corrections than to other areas of state government responsibilities and priorities.

During this five-year period of NCSL appropriations survey data, higher education appropriations actually declined from the prior year in FY1990, FY1991 and FY1993. Only in FY1992 and FY1994 did higher education receive increases over the prior year.

In every year higher education lost state budget share from its prior year--the same story told in the preceding four data sets examined in this survey.

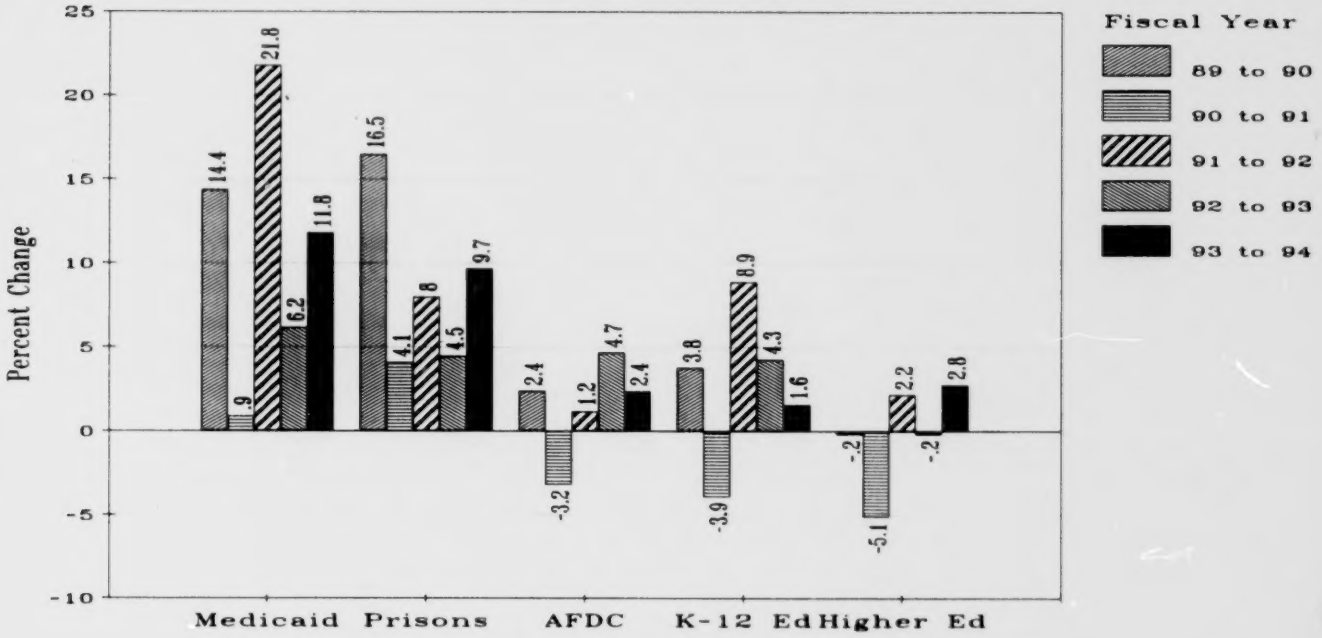
Meta-Analysis of Findings

These analyses all paint a similar picture of the shifting responsibilities for financing higher education from taxpayers at all levels of government to students and their families. The differences are matters of timing and degree. The similarities and differences in the stories told by the NIPA, Chambers, Census and HEGIS data bases of reduction in social resources committed to higher education are summarized in the table on the following page.

At the federal level:

- The 1992 level of financial investment effort averages about 72 percent of the peaks reached between 1978 and 1981.
- Because the largest source of funds for need-based student financial aid programs comes from the federal government, this retrenchment in investment has especially serious consequences for student aid programs designed to make college more affordable for students from low- and middle-income family backgrounds.
- If the federal government had made the same investment effort in

Annual Changes in Major Expenditure Categories from State General Funds FY1990 to FY1994



Summary of Analyses of Reduction in Government Support for Higher Education

Gvrmmnt Level/ Data Base	Maximum Effort		Most Recent Effort		Most Recent/ Maximum	Change in Tax Resources (billions)
	Measure	Year	Measure	Year		
<u>Federal</u>						
NIPA	0.95% of fed expenditures	CY1981	0.70% of fed expenditures	CY1992	73.7%	-$3.6
HEGIS	20.2% of public inst revenue	FY1978	14.2% of public inst revenue	FY1992	70.3%	-$4.5
<u>State</u>						
NIPA*	8.15% of govt expenditures	CY1982	6.58% of govt expenditures	CY1992	80.7%	-$13.0
Chambers	11.22% of tax funds approp	FY1979	7.96% of tax funds approp	FY1994	70.9%	-$16.7
Census	12.79% of tax revenue	FY1976	10.77% of tax revenue	FY1992	84.2%	-$6.6
HEGIS	58.9% of public inst revenue	FY1980	51.6% of public inst revenue	FY1992	87.6%	-$5.5
<u>Local</u>						
HEGIS	6.9% of public inst revenue	FY1976	5.0% of public inst revenue	FY1992	72.5%	-$1.4

* NIPA combines state and local governments.

1992 that it had made in 1981 under the NIPA and HEGIS analyses, it would have spent $3.6 to $4.5 billion more than it did in 1992.

At the state level, where the largest source of taxpayers funding for public higher education originates:

- The 1992 level of financial investment effort averaged about 84 percent of the peaks reached between 1976 and 1982. The single 1994 investment effort measure was 71 percent of the peak reached in 1979. More recent data in the NIPA, Census and HEGIS series undoubtedly will document further erosion in state support for higher education through 1994.
- States provide more than half the operating revenues of public colleges and universities, so the reduction in state investment in higher education is felt mainly in public institutions.
- If state governments had maintained their peak support for higher education through 1992, then in 1992 there would have been between $5.5 and $13.0 more state tax dollars in public higher education that there were.

The single data source on local government efforts in support of public higher education indicates that local government property tax payers reduced their effort in support of community colleges by $1.4 billion between 1976 and 1992.

All of the preceding analyses that show the proportion of higher education costs provided by individuals through tuition charges show this share larger in the most recent available year than at any prior period of the data series. This finding holds in the NIPA, Census and HEGIS data bases.

Compared to the 1980 level of effort made by students and their families, by 1992 tuition charges paid by students were between $5.4 and $11.9 billion greater than they had been a dozen years earlier.

Clearly there has been an enormous shift in financial responsibility for higher education in America over about the last 15 years. Very roughly speaking, this shift has decreased federal taxpayers' financial responsibilities by about $4 billion in 1992 over the level of effort made in the late 1970s. This shift has reduced state taxpayers' obligations by about $7 billion. This $11 billion reduction in taxpayer investment has been made up by the increase of $11 billion charged students (and their families) through higher tuitions.

Summary of Analyses of Increase in Individual Support for Higher Education

Data Base	1980 Effort		Most Recent Effort		Most Recent/1980 Effort	Change in Individual Effort (billions)
	Measure	Year	Measure	Year		
NIPA	0.94% of personal exp	CY1980	1.23% of personal exp	CY1992	130.9%	+$11.9
Census	24.42% of pub inst exp	FY1980	35.86% of pub inst exp	FY1992	147.0%	+$6.3
HEGIS	15.9% of pub inst rev	FY1980	23.0% of pub inst rev	FY1992	144.7%	+$5.4
HEGIS	21.04% of cost of education	FY1980	30.5% of cost of education	FY1992	145.0%	+$5.4

B. College Affordability

As the financial responsibilities for paying for higher education are shifted from federal, state and local taxpayers to individuals, the logical question for those concerned about opportunity for higher education is: *Who can afford to pay these higher costs?*

Obviously a student from a family earning $15,000 per year is less able to pay for higher education than is another student from a family earning $75,000 per year.

In this section we review the question of college affordability from the perspective of the student and his or her family and their resources as used in need-based student financial aid analysis.

Need Analysis

The formula used to determine need for financial aid to pay college attendance costs is as follows:

Costs of college attendance:
Tuition and fees
Books and supplies
Room
Board
Transportation
Personal and medical care
Less
Expected family contribution:
Parent's income and assets
Student's income and assets
Equals
Financial need:
Grants and scholarships
Education loans
Earnings from employment

This general formula--specified here for the individual by campus and living arrangement--is the basis for determining all need-based student financial aid eligibility and awards including grants, education loans and college work-study.

College Attendance Costs

The college attendance costs typically faced by college students are summarized in the following table for the 1993-94 academic year. These are national averages, based on data reported by The College Board adjusted to separate 4-year colleges and universities, for nine-months of study taking a full-time course load. Details have been omitted to save space.

An average nine months of full-time study may cost a student anywhere from $5372 at a public 2-year college as a commuter living at home, to $22,104 at a private university living on campus.

Generally, public institutions are less costly to students (and more costly to taxpayers) than are private institutions, universities are more costly than 2-year colleges, and living on campus costs more than living at home and commuting.

Expected Family Contribution

The expected family contribution for 1993-94 is calculated under the Federal Methodology implemented for 1993-94 by the Higher Education Amendments of 1992. This formula differs from federal need-analysis formulas used in prior years by the removal of home and farm equity from the parental contribution, the elimination of a minimum self-expectation from students and other changes.

The results vary by individual and family circumstances. However, for illustration purposes the following table summarizes what parents are expected to contribute (EPC) from their incomes (AGI) under the assumptions of family size of four with one in college. An addition for students is determined by savings and other factors, but this often adds only one or two thousand dollars to the parental contribution from income at any income level.

College Budgets, 1993-94

Institutional type/control	Living arrangement	College budget
Public:		
2-year	Commuter	$5372
4-year	Commuter	$6763
	Campus resident	$8419
University	Commuter	$7109
	Campus resident	$9230
Private:		
2-year	Commuter	$10,190
	Campus resident	$12,142
4-year	Commuter	$14,432
	Campus resident	$16,883
University	Commuter	$18,128
	Campus resident	$22,104

Expected Parental Contributions under Federal Methodology 1993-94

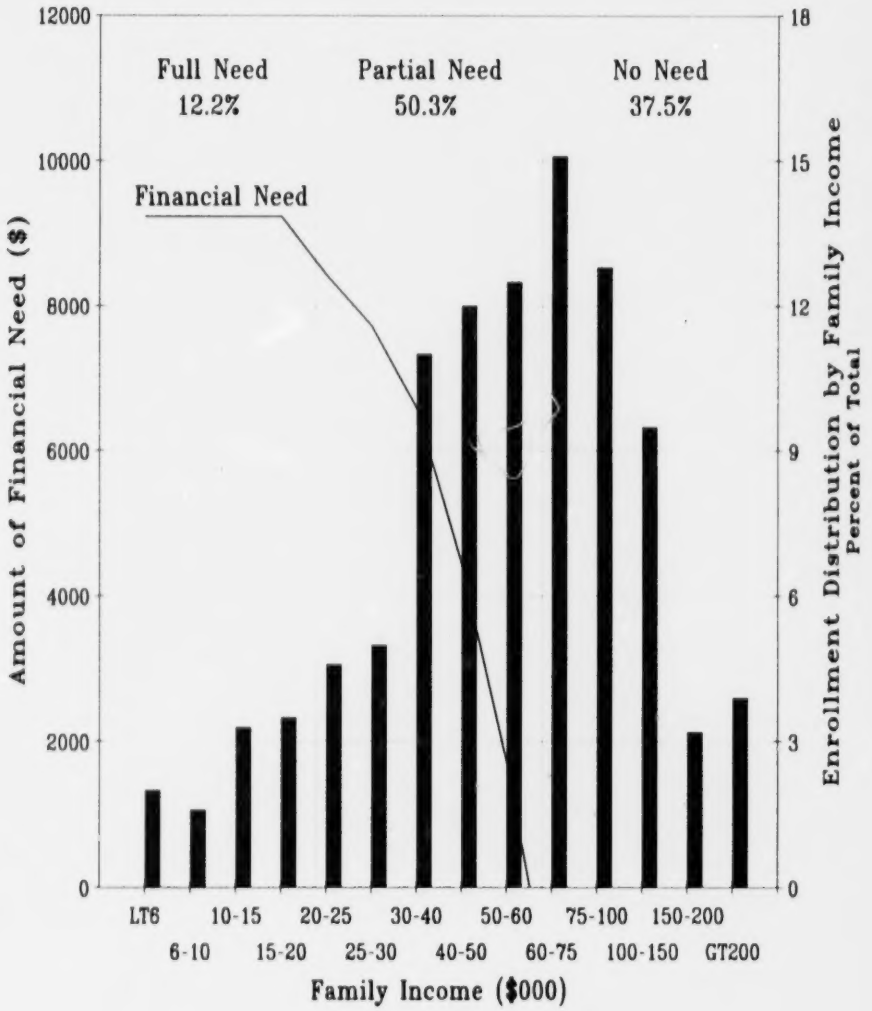
AGI	EPC
$0	$0
$5000	$0
$10,000	$0
$15,000	$0
$20,000	$0
$25,000	$481
$30,000	$1189
$35,000	$1897
$40,000	$2680
$45,000	$3655
$50,000	$4850
$55,000	$6067
$60,000	$7405
$65,000	$8757
$70,000	$10,110
$75,000	$11,462
$80,000	$12,815
$85,000	$14,167
$90,000	$15,519
$95,000	$16,872
$100,000	$18,224
$110,000	$20,812
$120,000	$23,376
$150,000	$31,202
$200,000	$44,362

Financial Need and Enrollment Distribution by Family Income

The difference between the college attendance costs and the expected family contribution is need. We have plotted financial need (as a line) by family income by institutional type and control on the following charts, along with the distribution of freshmen enrollments by family income (as bars) and institutional type and control.

For example in the first chart for public universities: 12.2 percent of the enrolled freshmen come from families with incomes below about $22,000 per year, are unable to contribute toward the cost of their children's educations

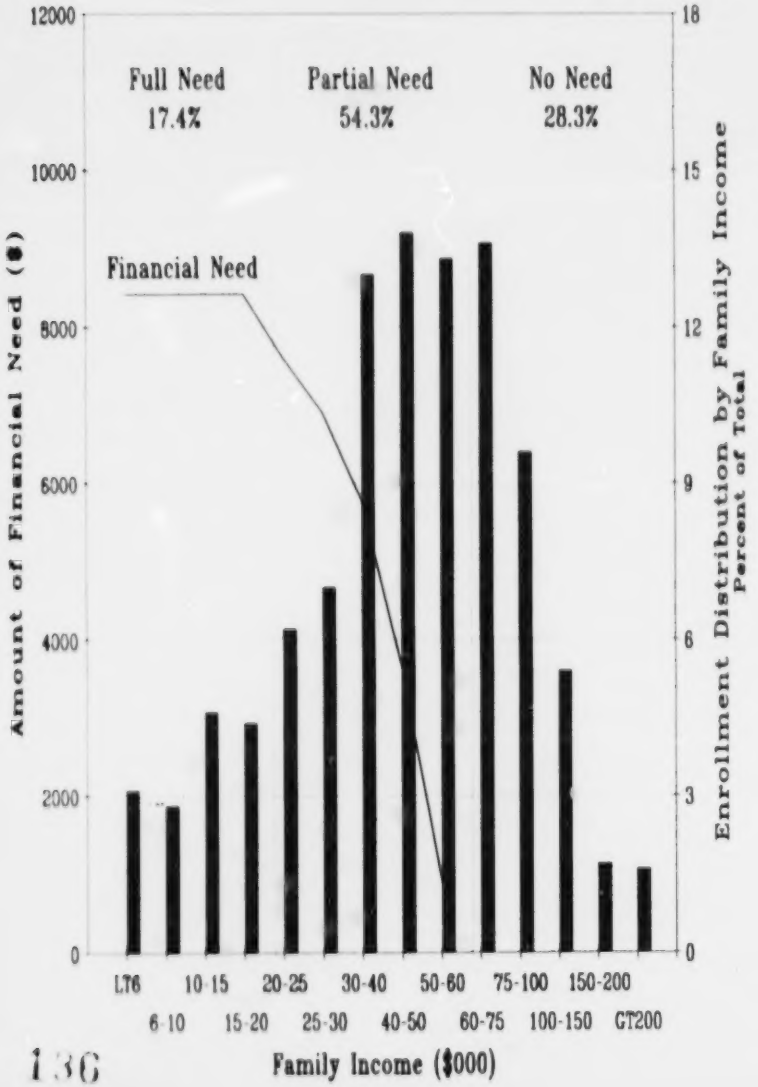
Distribution of Public University Freshmen and Their Financial Need by Family Income Levels 1993-94



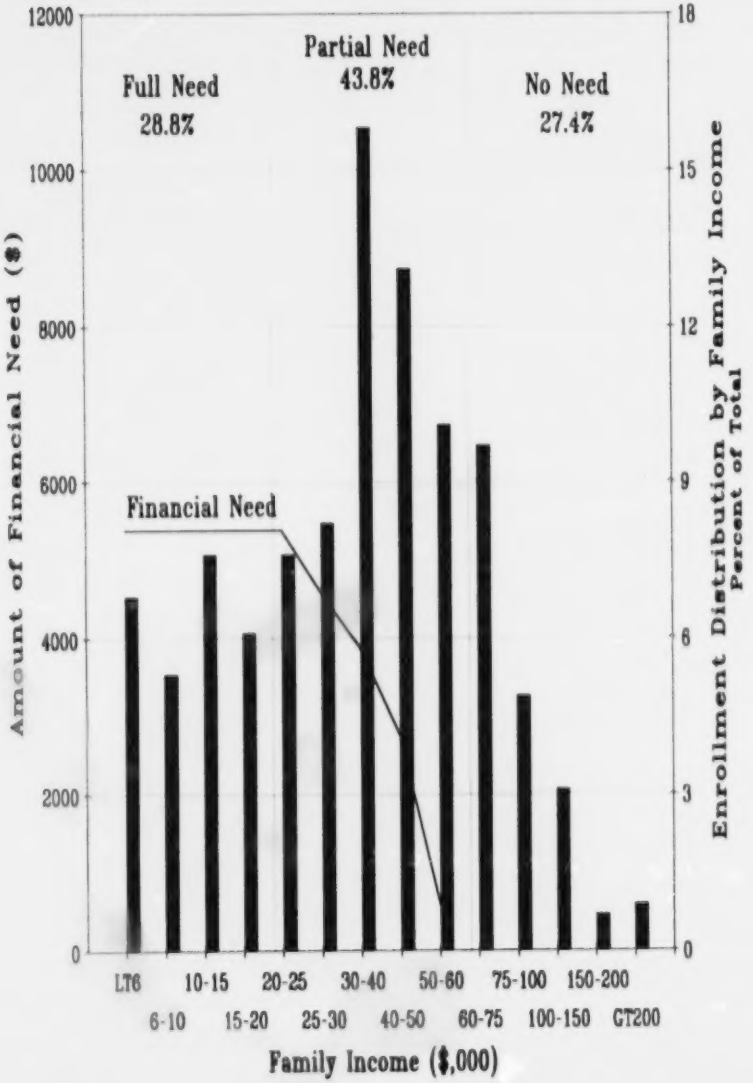
and thus need financial aid to finance the full college attendance cost of $9230. Another 50.3 percent of public university freshmen can contribute something from parental incomes--which range from $22,000 to about $67,000--toward the college budget, but need varying levels of financial aid to complete the financing of the college budget. The remaining 37.5 percent of public university freshmen come from families with incomes above $67,000 where the expected parental contribution exceeds the college budget and these students therefore are not financially needy.

Across institutional types and controls, public university freshmen are least likely to be financially needy and freshmen in private 4-year colleges are most likely to be needy. Public 2-year college freshmen are most likely to be able to contribute

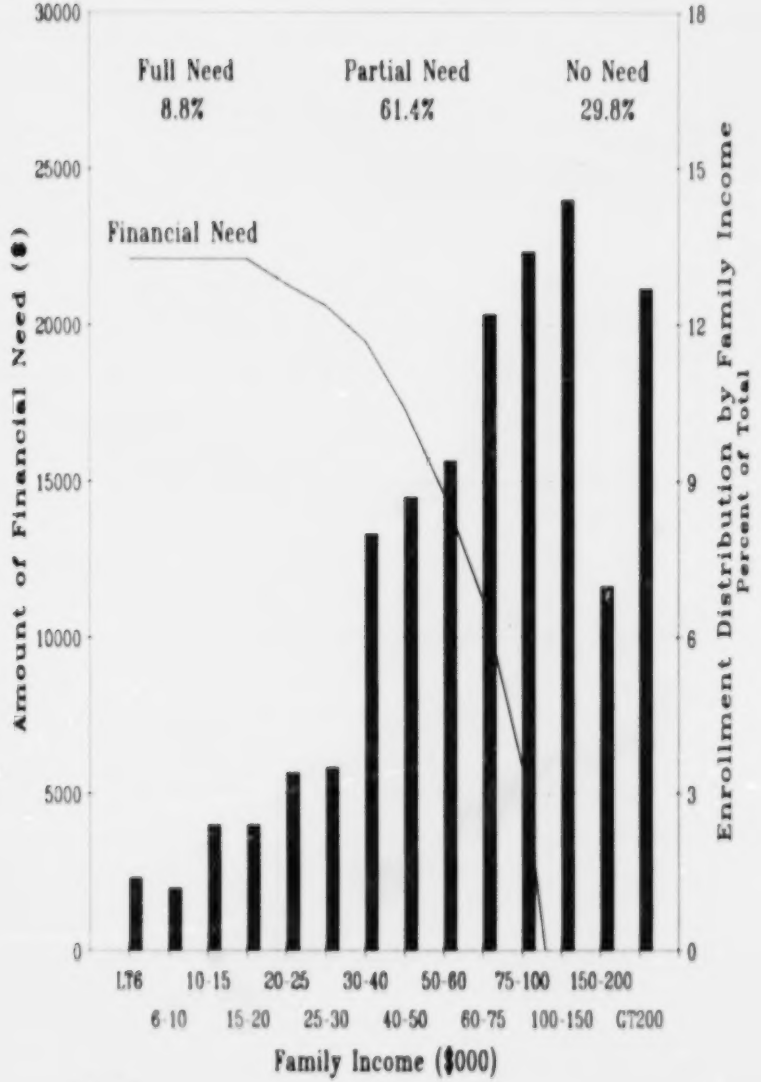
Distribution of Public 4-Year College Freshmen and Their Financial Need by Family Income Levels 1993-94



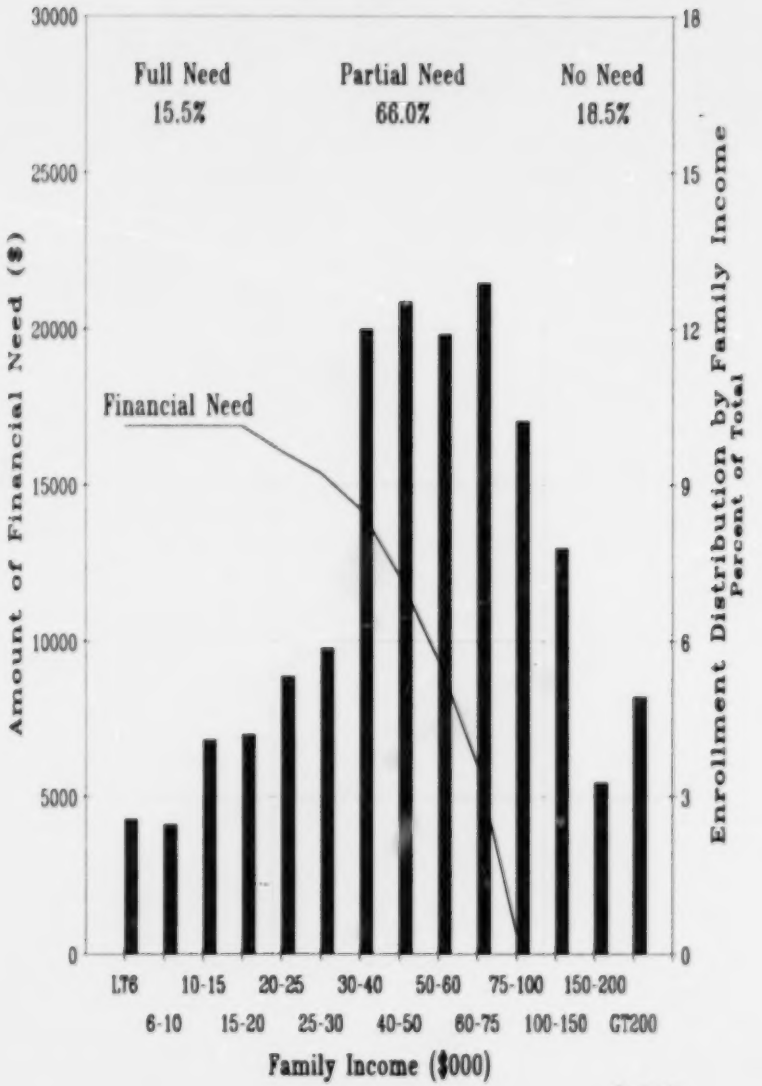
Distribution of Public 2-Year College Freshmen and Their Financial Need by Family Income Levels 1993-94



Distribution of Private University Freshmen and Their Financial Need by Family Income Levels 1993-94



Distribution of Private 4-Year College Freshmen and Their Financial Need by Family Income Levels 1993-94



nothing toward the costs of their own community college educations.

C. Government Response

As governments have reduced the allocation of social resources for higher education and institutions have responded by increasing tuition charges to students to offset the loss of social resources, college has become less affordable to students and their families. This problem has been exacerbated by the growing inequality in the distribution of income among families: compared to twenty years ago there are now more students in poor families, more students in affluent families, and fewer students from middle income families. This problem has been made much worse by federal policy shifts and the federal budget deficit since most student financial aid has been provided by the federal government for about the last three decades.

The central conundrum of public policy is how to substantially broaden opportunities for postsecondary education and training for financially needy students at the same time that society has reduced substantially the share of available resources that it is willing to commit to higher education.

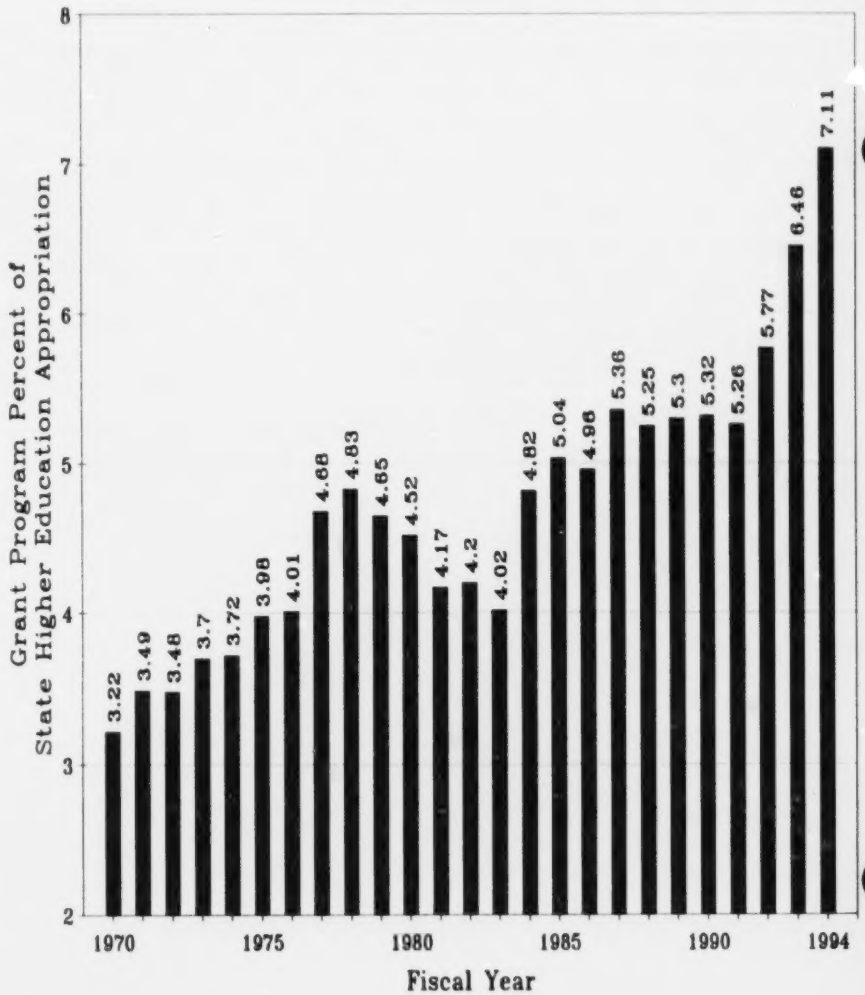
This is a classic "between a rock and a hard place" dilemma. On the one hand young people who do not pursue postsecondary education face brutal treatment by a labor market that reserves its best jobs at highest pay for those with the most education. The jobs that are left are at or near minimum wage, with prospects only for declining real wages.

Young people who are not higher educated are likely to incur social costs later in life that will make inadequate social investments in their higher education seem trivial by comparison. In effect, the clumsy redistribution of responsibilities for financing higher education from society to individuals, and the growing affordability problem it creates, simply defers social costs to a future date.

Federal Government

The federal student financial aid picture has deteriorated steadily since the late 1970s, with each new twist and turn in federal policy either missing the point (substituting direct lending for the state-based system that has evolved over the last twenty five years, creating a program of national service to help students pay college costs) or making the situation worse (neglecting the Pell Grant program, substituting loans for grants). Given the current federal budget deficit and constraints on spending that have been imposed, there is no federal remedy on the table.

State Grant Program Appropriations as a Proportion of State Appropriations for Higher Education FY1970 to FY1994



State Government

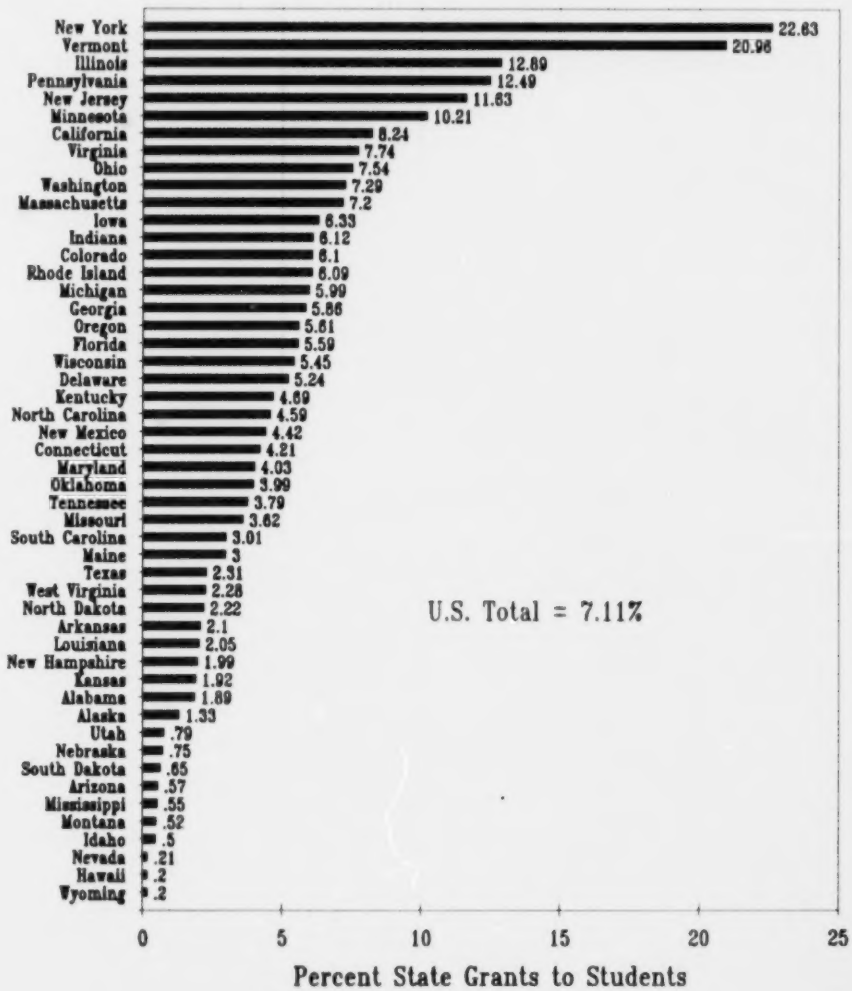
States present a somewhat different, if highly uneven, picture. Here social resource budgets have been better balanced than at the federal level. And although Medicaid and prisons have been crowding higher education out of state budget priorities in recent years, states have shown an (uneven) interest in helping students with need by providing (sometimes substantial) state grants to help pay college attendance costs. Here we review the state picture because of the promise it holds for providing resources to broaden opportunity.

Although states have been reducing the share of social resources allocated to higher education, within that allocation the share allocated to institutions has been decreasing while the share allocated to direct grants to students has been increasing at least since 1970. Between 1970 and 1994, the share of state tax fund appropriations for higher education that went into direct grant assistance to students increased from 3.2 to 7.1 percent of the total. About 76 percent of these direct student grant dollars were needs-tested. (About 9 percent is not needs-tested, and the remaining 15 percent are special programs such as tuition waivers, veterans' programs, matching programs, etc.)

The unevenness of state efforts to meet the financial needs of students in higher education is evident in the chart on needs-tested state appropriations for higher education. At one extreme, **New York** and **Vermont** provided over 20 percent of their annual state tax fund appropriations for higher education in the form of needs-tested grants to students. Other states with 8 percent or more of their higher education appropriations allocated to needs-tested student grants include **Illinois, Pennsylvania, New Jersey, Minnesota** and **California**. The states allocating 4 percent or more of their higher education appropriations as need-based grants to students are located primarily in New England, Middle Atlantic or upper Midwest regions with significant private college enrollments and histories.

In addition to the $2.2 billion that states provided for need-based grants directly to students in 1993-94, another $0.3 billion was appropriated by states to institutions specifically for student financial aid purposes. These appropriations occur in 18 states, plus the District of Columbia and Puerto Rico. The major states following this practice and the amounts appropriated in millions were: **New York** ($73.8), **California** ($50.2), **Virginia** ($47.7), **North Carolina** ($27.7), **Washington** ($24.1), **Connecticut** ($21.4), and **Florida** ($16.8). These grants are all needs-tested only in California, Connecticut and Washington.

State Grant Program Appropriations as a Proportion of Each State's Higher Education Appropriations FY1994



At the other extreme are the states that provide less than 0.8 percent of their annual state tax fund appropriations directly to students through needs-tested grants. These states are **Wyoming, Hawaii, Nevada, Idaho, Montana, Mississippi, Arizona, South Dakota, Nebraska and Utah**. Several of these states are either at or very close to the 50 percent match requirement to receive federal State Student Incentive Grant (SSIG) funds. These states, and the SSIG share of state grant funding are: **Wyoming** (50.0%), **Montana** (50.0%), **District of Columbia** (49.3%), **Nevada** (49.2%), **Mississippi** (49.1%), **Utah** (47.8%), and **Alabama** (46.6%). These states make the least effort to support the financial needs of their own students.

Conclusion

The conundrum facing public policy regarding educational opportunity is a straightforward one: How does one broaden postsecondary education and training opportunities for people when the share of social resources provided by government for this purpose is being reduced?

Over the last twenty years changes in the labor force have clarified the relationship between postsecondary education and private welfare: those who are not educated have seen their situation deteriorate steadily and substantially, while those with postsecondary education have generally managed to at least maintain their living standards. There is no reason to believe that these trends will not continue for the foreseeable future.

Similarly, for at least the last fifteen years the share of social resources allocated through federal, state and local governments to higher education has been reduced. This retrenchment in social resource support has occurred in every state, under republicans and democrats, during economic expansion and recession and indeed may have been underway at the state level for as long as twenty-five years. There is no reason to believe that these trends will not continue for the foreseeable future.

Among the several consequences of these two trends are the following. First, higher education has become seriously underfunded, with clear and widespread consequences for the capacity, quality and affordability of educational opportunity. Second, the burden of this serious underfunding is not borne equally across all population groups. Those most adversely affected include blacks, Hispanics, and students from the bottom three quartiles of the family income distribution, especially the lowest. Those least affected are whites, Asians and those from the top family income quartile. And finally, the failure of society to adequately invest in its human resources today does not absolve society from its responsibility to itself: the failure today merely defers the responsibility to the future where society will face it again, in other ways.

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Postsecondary Education
OPPORTUNITY

The Mortenson Research Letter on Public Policy Analysis of Opportunity for Postsecondary Education

Number 27 **Iowa City, Iowa** **September 1994**

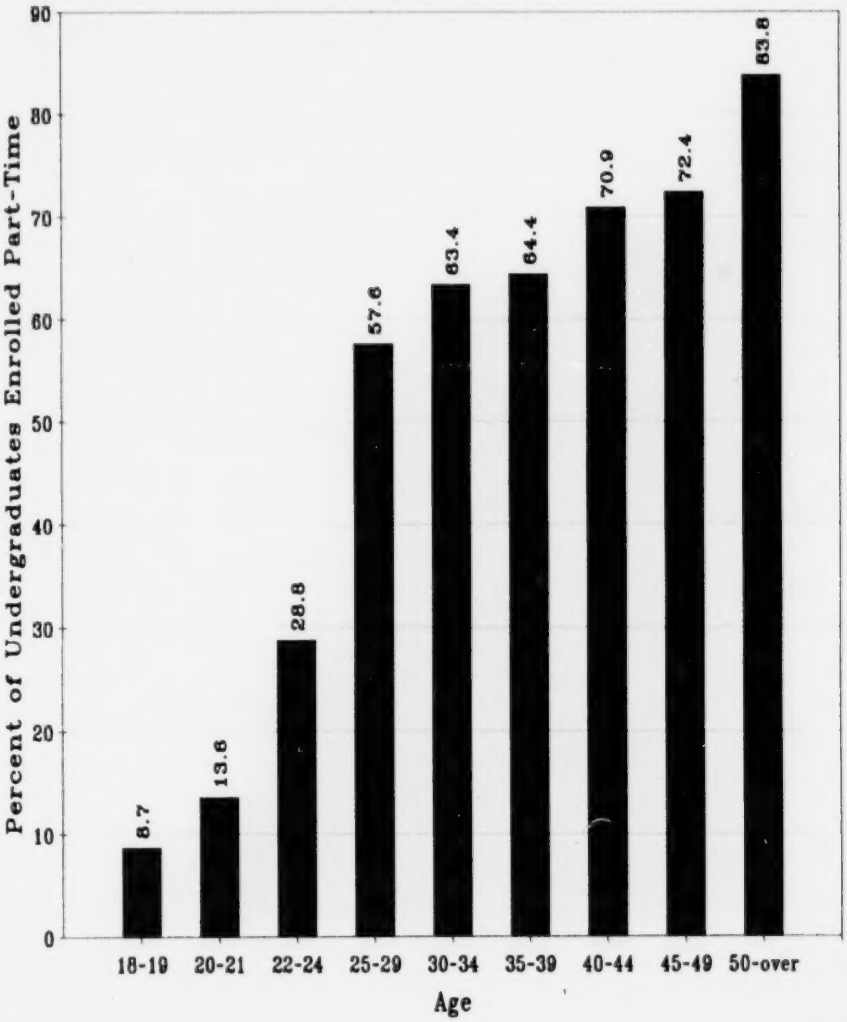
Part-Time College Enrollment: It's Mostly a Matter of Age

Over four out of ten college undergraduates are enrolled part-time, according to data reported by the National Center for Education Statistics. Moreover, the proportion of undergraduates enrolled part-time has been increasing over the last twenty-five years.

In this study we describe part-time collegiate enrollment in several ways using data collected by the Census Bureau and the National Center for Education Statistics. Among the major findings of our review of these data are the following:

- *Part-time students differ from full-time students primarily on the basis of their ages. Recent high school graduates nearly always enroll in college full-time. College students over the age of 24 are more likely to be enrolled part-time than full-time.*
- *The proportion of college students enrolled part-time varies enormously by state, from about 20 percent in North Dakota and Puerto Rico, to 67 percent in Nevada.*
- *Nearly all first professional students are full-time, while most graduate students are enrolled part-time.*
- *Females and Hispanics are more likely to attend college part-time than are males, whites and blacks.*
- *Among 18 to 24 year old dependent family members enrolled in college, there is no discernable difference across family income levels in part-time/full-time collegiate enrollment.*

Part-Time Undergraduate Enrollment Rates by Age
1992



These and many other findings are gleaned from data contained in reports from the Integrated Postsecondary Education Data System (IPEDS) survey conducted annually by the National Center for Education

Statistics, and the Current Population Survey (CPS) conducted by the Census Bureau. Each data source offers insights into how students classified in different ways pursue their higher educational studies.

Part-Time Enrollment

The Census Bureau defines part-time college attendance as a student taking less than 12 hours of classes during an average school week.

The National Center for Education Statistics uses a different definition, and hence reports somewhat larger numbers. The NCES definition of part-time enrollment is the number of students enrolled in higher education courses with a total credit load less than 75 percent of the normal full-time credit load.

The differences in definitions of part-time collegiate enrollment produce different results as shown in the following table.

Comparison of Census and NCES Full-Time/Part-Time Higher Education Enrollments Fall, 1992

Enrollment	Census	NCES
Total	14,035,000	14,558,000
Full-time	9,189,000	8,139,000
Part-time	4,846,000	6,419,000
% PT	34.5%	44.1%

Higher education enrollment usually does not depend on age--from the institution's perspective at admission. But from the student's perspective, life-cycle factors such as marriage, children, and career obligations may limit the amount of time available to pursue collegiate studies.

Economists refer to these compromising factors as "opportunity costs," or the value of the opportunities and commitments sacrificed to pursue collegiate studies. Such opportunity costs may be so great as to preclude a potential college student from attending college full-time or from attending college at all.

Opportunity attendance cost barriers are only rarely addressed in student financial aid. One example where they often are is day care costs for a parent with young children who could not afford to attend college unless costs of child care were covered by financial aid. This is also why many colleges sprout child day care centers on their fringes for the benefit of both student-parents and employed staff. Generally, however, foregone income, mortgage and car payments, and other opportunity costs are not addressed in financial aid and remain effective barriers to full-time or even part-time college study.

Data examined in this survey mainly come from two sources:

Snyder, T. D. October 1993. ***Digest of Education Statistics, 1993***. Washington, DC: National Center for Education Statistics.

Kominski, R., and Adams, A. October 1993. ***School Enrollment - Social and Economic Characteristics of Students: October 1992***. Current Population Reports, P20-474. Washington, DC: U.S. Bureau of the Census.

Part-Time Enrollment by State

A college student living in **Nevada** or **Alaska** is more than three times more likely to be attending college on a part-time basis than is a student from **North Dakota** or **Puerto Rico**. In 1991 NCES reported simply huge differences across states in college students' chances for being enrolled part-time. These differences appear to be due, at least in part, to differences in the availability of public 2-year college opportunities across the states.

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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement
This research letter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this research letter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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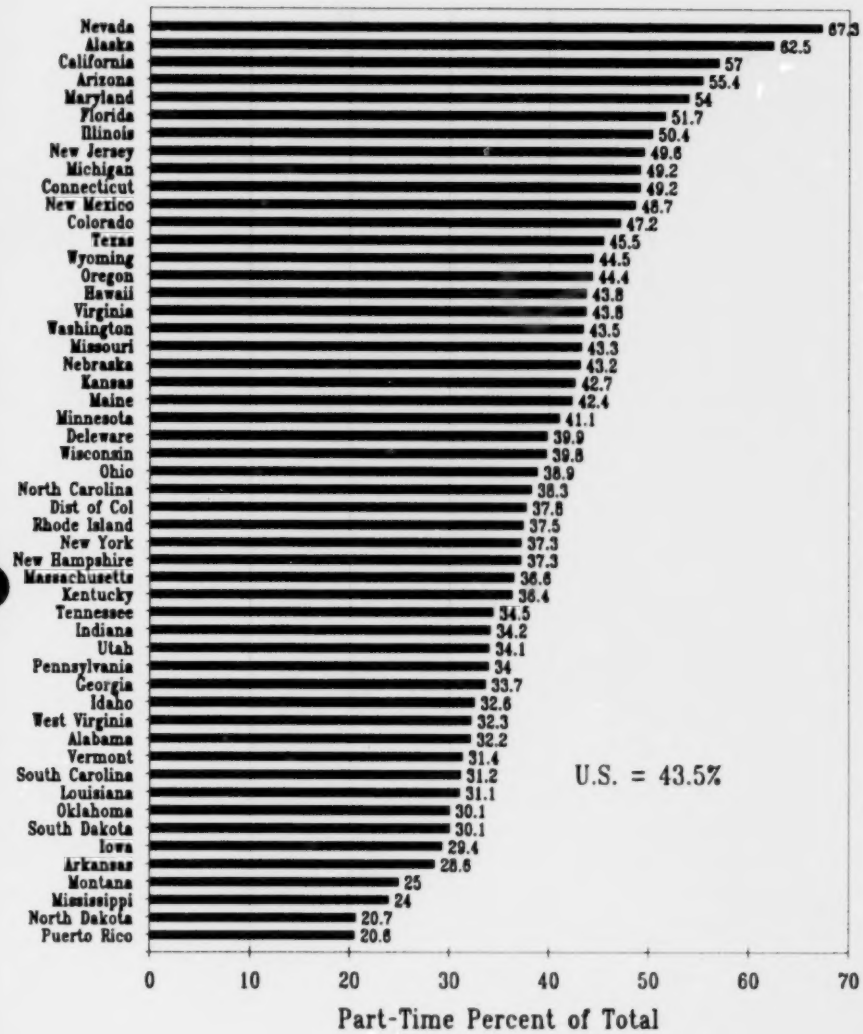
Part-Time Enrollment by State 1991



The National Center for Education Statistics reported that in 1991 about 56 percent of all part-time college enrollments were in public 2-year colleges. The balance were in public 4-year (29%), private 4-year (14%), and private 2-year colleges (1%). Generally, those states with large public 2-year college enrollments also had larger shares of part-time enrollments (older students). Those states without substantial 2-year college systems had smaller shares of students enrolled on a part-time basis.

Trends in Part-Time Enrollment

The NCES data permit us to look at part-time enrollment over time. From the several perspectives possible with published data, different conclusions are reached.

First-time freshmen enrollment gives one answer: the proportion attending part-time increased from the late 1960s through the early 1980s for both males and females. For males the reported numbers indicate that in 1967 18.3 percent were part-time. This increased to a peak of 30.2 percent in 1982, and then declined to 25.3 percent by 1991.

A similar pattern holds for first-time freshmen females. The proportion of first-time female enrollments attending part-time increased from 19.2 percent in 1967, to a peak of 35.7 percent in 1981, and has since dropped back to 29.4 percent by 1991.

Alternatively, when NCES enrollment data are analyzed by level of enrollment for attendance status, the proportion of undergraduates attending part-time has increased steadily from 27.5 percent in 1969 to 41.9 percent by 1991.

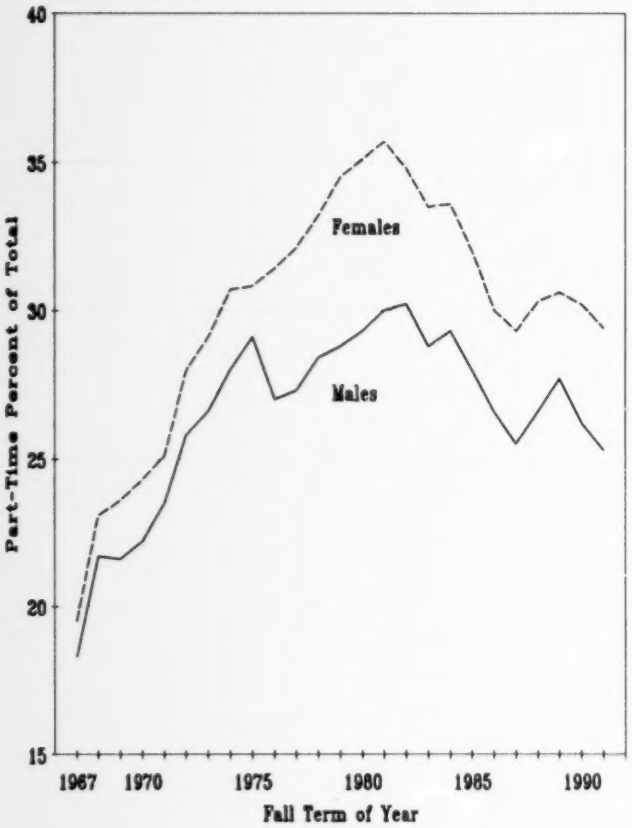
(The proportion of graduate students attending part-time has remained relatively flat at 62 to 64 percent over this period. Similarly, the proportion of professional students attending part-time has remained between 8 and 10 percent between 1969 and 1991.)

Part-Time by Age and Gender

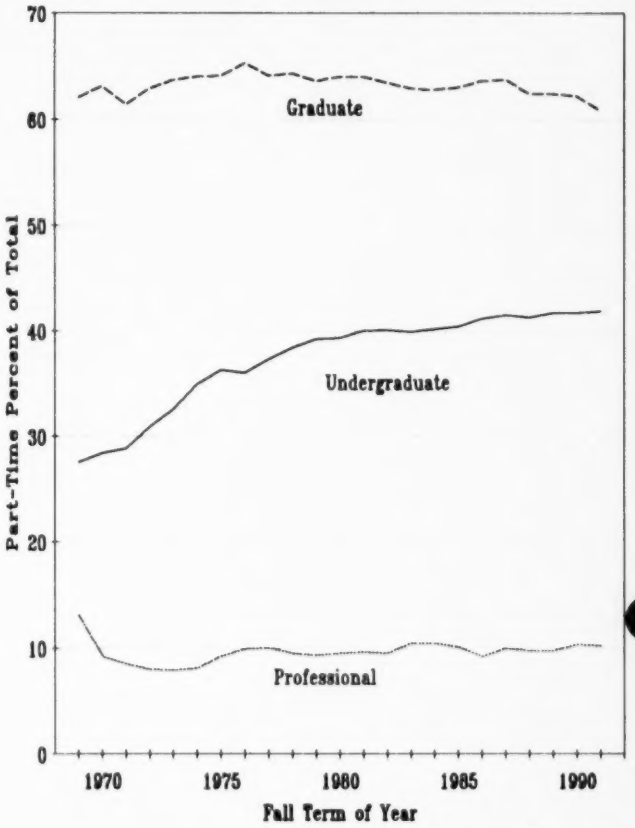
As the chart on the first page of this issue of **OPPORTUNITY** clearly shows, college students in the traditional college age range of 18 to 24 attend college primarily as full-time students. Less than one out of ten college students age 18 and 19 enrolls in college on a part-time basis. However, immediately beyond the traditional college age range, enrolled students are more likely to be attending part-time. As age increases through the 40s, 50s and 60s, probability of enrollment on a part-time basis continues to increase. After age 50 about five out of six college students are enrolled part-time.

Women are more likely to attend college part-time than are men. By

Percent of First-Time Freshmen Attending Part-Time by Gender, 1967 to 1991



Percent of Enrollment by Level Attending Part-Time, 1969 to 1991



the NCES definition of part-time attendance status, 39.6 percent of the men and 46.7 percent of the women were enrolled part-time in 1991. Under the Census Bureau's definition, 30.1 percent of the men were attending college part-time, compared to 38.1 percent of women in October of 1992.

When attendance status is examined by both gender and age, women are *usually* more likely than men to be enrolled part-time. The one exception is at age 20 and 21 when men are more likely to be enrolled part-time than are women.

The difference in the rates at which women compared to men attend part-time are least between the ages of 18 to 21 and age 30 and over. The part-time enrollment rate difference between women and men is greatest between the ages of 22 and 29, when women are most likely to have young children.

Institutional Type and Control

At any age, college students are least likely to be enrolled part-time in private 4-year institutions. They are most likely to be enrolled part-time at any age level in public 2-year colleges.

For example, among 18 and 19 year olds--the age cohort most likely to be attending college full-time--2.5 percent of those in private 4-year institutions and 5.8 percent of those in public 4-year institutions attend part-time. By comparison, 29.7 percent of those in this age group attending public 2-year colleges attend part-time.

This gap widens in the 20 to 24 year old age range, then narrows among older groups of students. However, at every level more 2-year college students attend part-time than do students in public or private 4-year colleges and universities--and by a wide margin.

Race and Ethnicity

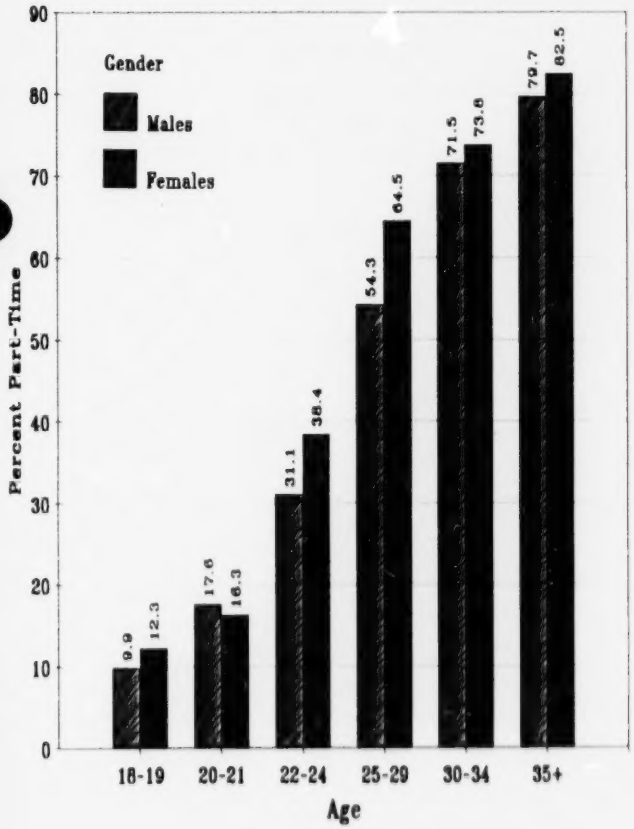
The Census Bureau's data offers insight into attendance status by age and racial/ethnic group. Although data on post-

baccalaureate enrollments are available, here we examine only data for undergraduates college students.

Generally, Hispanics are far more likely to attend college on a part-time basis than are whites, blacks or those of other race (mainly Asians). Among 18 to 21 year olds, for example, Hispanics are about twice as likely to attend part-time as are those of the other racial groups.

At the other extreme, those of other race--mainly Asians--are least likely to attend part-time. This is especially true among those in their 20s, although the difference persists beyond age 35.

Part-Time Attendance Status by Age and Gender
1991



Family Income

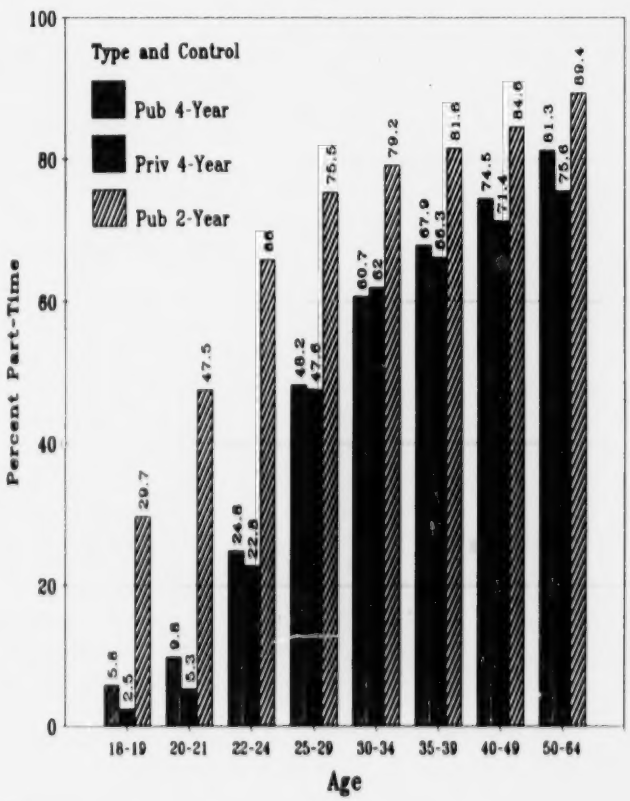
One of the more perplexing findings from our analysis of Census Bureau data is the very weak relationship between attendance status and family income for unmarried 18 to 24 year old undergraduate college students. Because of the initial findings from the 1992 Current Population Survey were ambiguous, we extended the 1992 analysis to 1991 and 1990 CPS data. We found similar results.

Among 18 to 24 year old dependent family members those most likely to attend college part-time were those in the $15,000 to $20,000 family income range. Over the 1990-1992 period, an average of 17.3 percent of this income group attended college part-time.

Those least likely to attend college part-time were from the highest family income interval, $75,000 and over. For the 1990-1992 period an average of 8.1 percent of this group attended college part-time.

Lest anyone think they detect a trend here--e.g. the less affluent are more likely to attend part-time--students from the lowest family income range--less than $10,000--were second least likely to attend college part-time. One might conclude that students from the lowest and highest family income ranges are most likely to attend college full-time. But the more obvious finding from the data is that the relationship between income and attendance status is only a weak one at best.

Part-Time Attendance Status by Age
and Institutional Type and Control
1991

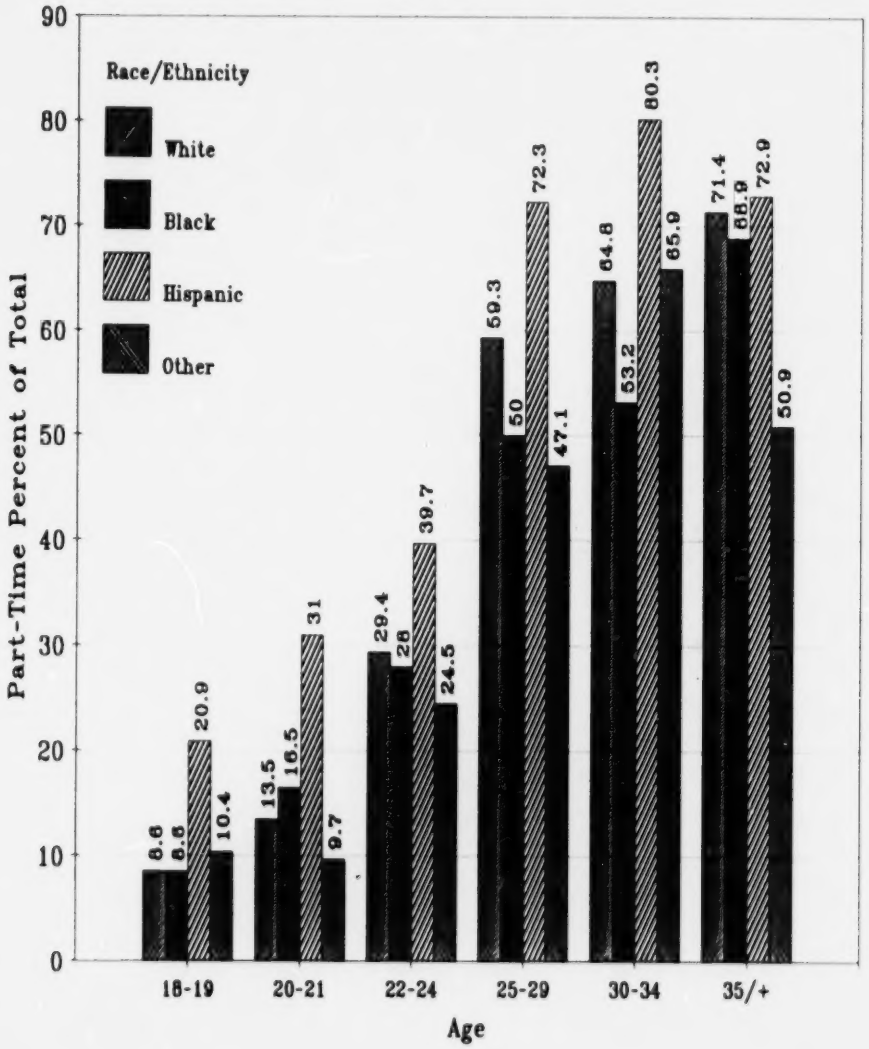


Summary of Findings and Conclusions for Policy

Roughly speaking: part-time = older students. Part-time also has a relationship to gender, race/ethnicity, institutional type and control, state, and to a much lesser extent to family income. Any way these data are examined, however, the strongest relationship with part-time attendance status is with age: the older one is, the more likely one is to attend part-time.

This finding affirms the role of opportunity costs (as defined by economists) in preventing the full-time engagement of older students in the higher education experience. Life complicates quickly as young adults move through their 20s in the transition from dependence to independence, from single to married, from child to parent, from debt-free to deeply indebted, from tax-consumer to tax-payer, from unemployed to career-dedicated.

Part-Time Attendance Status by Age and Race/Ethnicity
1992



These transitions, however, do not in any way diminish needs for education and training that equip workers for productive and rewarding economic roles. The individual may come to realize that more education will lead to better jobs. And if the individual does not realize this, changes in the labor market may pound the message home in a brutal manner through missed promotional opportunities, reassignments, layoffs and unemployment. The economy moves forward with continuously changing and often upgraded education and training requirements. He or she who ignores these dynamics assumes a growing risk of being left behind or left out entirely.

Opportunity for re-education and continuing education requires capacity and programming to meet the needs of students beyond the traditional college age of 18 to 24. To date community colleges have risen to this challenge--4-year public and private colleges and universities play a relatively small role in meeting these needs for older students. Frequently employers see it to their advantage to educate and train employees in ways that meet specific organizational development needs.

Opportunity costs of college enrollment are rarely addressed in financial aid, nor are they likely to be to any significant degree. However, existing programs--particularly at the state level--could be modified to enable such programs to serve part-time students in traditional ways. Federal student aid programs have always served part-time students.

State grant programs are another story. Many restrict eligibility to full-time students and thereby exclude older students. A few states have set up separate programs for part-time student financial aid, but such programs are often very small compared to aid available to full-time students.

FY1995 State Appropriations for Higher Education: Looking Better, But That Isn't Saying Much

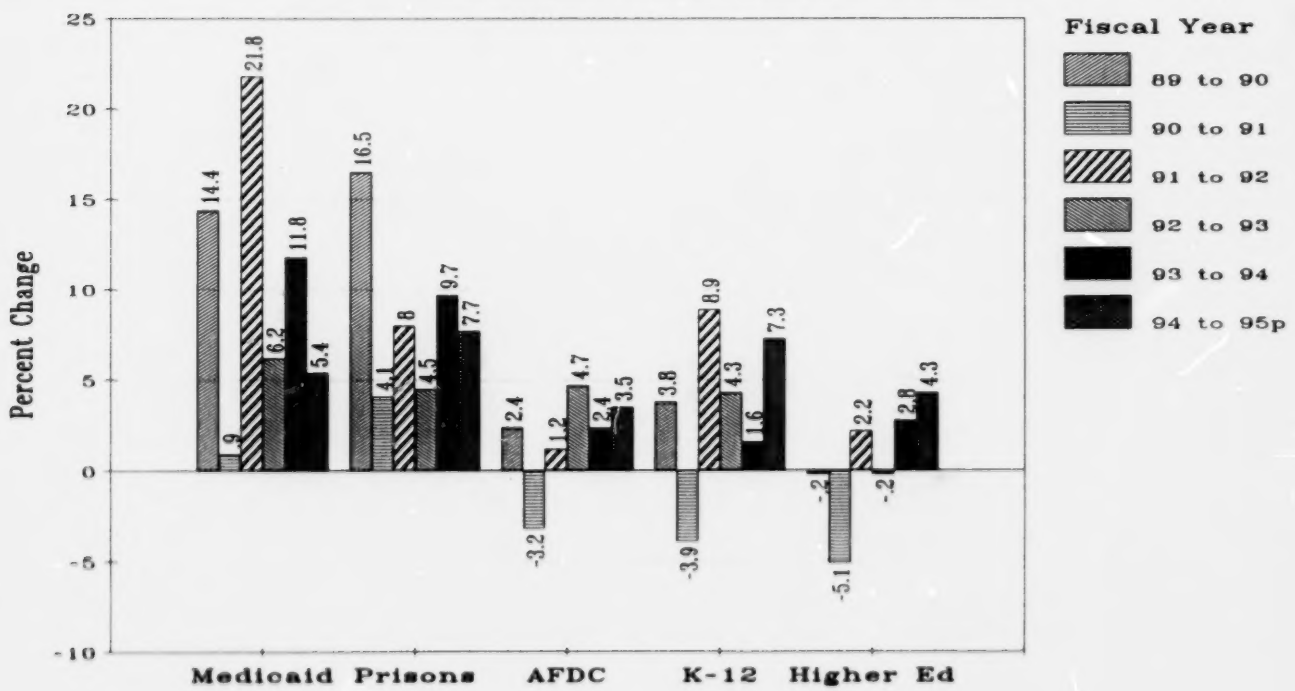
There is good news, and bad news, and good news about state appropriations for higher education for FY1995.

- *The good news is that preliminary data show an increase in state appropriations for FY1995 over FY1994 of 4.3 percent--greater than the 2.8 percent increase for FY1994 and -0.2 percent reported for FY1993. The increase is greater than inflation, which is now running at 2.5 percent.*

- *The bad news is that higher education's share of state tax fund appropriations may have shrunk again for FY1995 just as it has for the last two decades. Higher education's increase of 4.3 percent just barely exceeded projected state revenue growth of 4.2 percent. But states are projected to draw down their reserves in FY1995 by spending more than they plan to take in. States are apparently continuing to retrench the share of available tax resources for higher education, and expand their tax resource allocations to corrections (+7.7%), Medicaid (+5.4%) and K-12 education (+7.3%) for FY1995.*

- *The good news is that states continued to expand their need-based state financial aid grant program appropriations for FY1995 to at least partly offset the tuition increases imposed by state institutions adversely affected by long-term loss of state tax support. State financial aid grant programs will spend 8.5 percent more in FY1995 than they did in FY1994, serve about 4.6 percent more financially needy students with grants that will average 3.9 percent more than they did in FY1994.*

Annual Changes in Major Expenditure Categories
from State General Funds
FY1990 to FY1995



Percentage Change in State Appropriations for Major Areas of Expenditure FY1994 to FY1995

Rank	State	Higher Education	K-12 Education	Corrections	AFDC	Medicaid
1	Mississippi	39.8%	10.6%	9.9%	7.6%	2.4%
2	Georgia	15.8	3.7	11.3	3.4	11.3
3	Alabama	14.4	16.2	-3.0	2.9	15.8
4	Idaho	12.0	16.6	12.8	8.3	10.7
5	Maryland	10.3	6.4	6.0	-3.1	5.5
6	Florida	8.5	6.8	9.2	-4.9	10.6
7	Utah	8.5	6.8	9.3	10.9	15.7
8	Arizona	8.3	6.4	19.6	-2.9	7.9
9	New Mexico	8.2	8.7	8.1	4.6	17.5
10	Missouri	7.6	16.4	9.0	3.6	17.5
11	Puerto Rico	7.3	9.4	.3	13.6	2.3
12	Ohio	6.4	4.8	11.6	3.5	7.2
13	Oregon	6.4	25.1	0.8	11.2	20.6
14	New Hampshire	6.2	-9.9	7.1	19.3	N/R
15	Louisiana	6.0	2.8	0.5	-5.9	-9.8
16	Delaware	5.9	7.6	8.1	-1.4	4.3
17	Illinois	5.2	4.6	5.0	8.3	16.6
18	California	5.0	3.3	9.0	1.2	-5.6
19	Wyoming	4.7	-12.6	10.2	-12.6	33.6
20	Pennsylvania	4.3	2.4	19.5	3.2	6.5
21	North Dakota	4.1	4.1	4.0	3.9	4.0
22	Minnesota	4.1	4.1	14.2	-3.8	11.2
23	Tennessee	3.9	4.0	-0.9	-12.1	-1.2
24	Virginia	3.8	9.8	20.3	1.0	13.7
25	Iowa	3.6	2.9	3.1	-1.0	7.1
26	South Dakota	3.5	9.7	12.3	2.5	12.5
27	Nebraska	3.2	6.4	6.1	19.4	7.7
28	Michigan	3.1	72.0	7.5	-4.7	3.4
29	Colorado	3.0	6.1	8.7	7.0	5.2
30	Kentucky	2.3	4.5	9.6	-0.2	8.2
31	New York	2.3	1.3	5.3	6.5	N/R
32	South Carolina	2.2	5.1	7.7	2.4	2.4
33	West Virginia	2.2	5.4	36.8	21.8	11.6
34	Wisconsin	1.8	12.6	7.5	1.1	6.9
35	Hawaii	1.6	-0.1	4.0	17.6	4.9
36	Connecticut	1.0	4.1	16.8	3.2	9.7
37	Maine	1.0	0.4	13.3	-16.4	-1.0
38	Arkansas	0.7	5.9	5.2	6.0	11.0
39	Indiana	0.6	2.9	0.3	4.0	-12.8
40	Oklahoma	0.2	3.4	6.9	-6.0	0.7
41	Nevada	0.1	6.0	2.4	14.2	20.7
42	Vermont	-1.0	-1.0	15.4	-7.2	8.4
43	New Jersey	-1.2	-12.4	2.9	-2.6	3.1
44	Kansas	-1.4	4.9	5.4	6.4	6.9
45	Alaska	-1.6	2.5	-3.4	3.4	2.7
46	Texas	-2.4	2.1	1.9	6.7	12.2
47	Montana	-3.8	2.2	-0.3	5.2	7.2
48	Washington	-5.2	5.1	4.5	1.4	17.7
	Mean	4.3%	7.3%	7.7%	3.5%	5.4%
	Median	3.7%	4.8%	7.5%	3.4%	7.4%

Not reporting: District of Columbia, Massachusetts, North Carolina, Rhode Island.
Source: National Conference of State Legislatures, from survey of legislative fiscal officers, June-July 1994.

We have examined preliminary survey data on state appropriations for FY1995 from the National Conference of State Legislatures, and added the results of our own survey of state appropriations for student financial aid programs. The main finding is that trends in state finance of higher education that began in the 1970s continued in recently completed legislative sessions. That means that states continued to reduce the allocation of social resources to higher education, but also continued to shift state appropriations for higher education from institutions to students through need-based student grant programs. As is always the case, the overall numbers obscure significant differences between states.

In the following analysis we assume that governors and legislatures assign incremental funding to their true priorities. Dollars are scarcer than words, and the allocation of dollars more accurately reflects intentions than do speeches. Higher educational opportunity--capacity, quality, and affordability--costs real money. Public institutions faced with expanding responsibilities and declining state tax support will, once again, try to make up some portion of the loss in state support through higher tuition charges to students. Some students can afford higher tuitions, many cannot, and thus state support for need-based grant programs grows in importance as the cost shift from taxpayers to students continues in 1994-95.

State Appropriations

The preliminary report on "State Budget and Tax Actions 1994" from the National Conference of State Legislators was released in late July. The NCSL report noted:

> *Funding for higher education has been erratic in the past few years. During the recession in the early 1990s, higher education was squeezed out by other state programs, especially Medicaid and corrections. As fiscal problems have eased, there has been more effort to boost higher education funding in FY 1995.*

Actually, compared to the efforts of states for the last several years, any effort at all to increase funding for higher education would appear to be substantial. Controlling for anything--inflation, enrollment growth, share of state budget, or state per capita personal income--would all show that state funding for public institutions has declined substantially in recent years just it has for the last 20 years. FY1995 state appropriations appear to show the same pattern: while state appropriations for higher education were up 4.3 percent over FY1994 while they were up 5.4 percent for Medicaid, 7.3 percent for K-12 education, and 7.7 percent for corrections. As the NCSL report notes:

- *Continuing a trend that began in FY1993, state funding for Medicaid exceeded tax-financed funding for higher education in FY1994. This trend continued in FY1995 budgets.*
- *For the first time in four years, corrections did not receive more new state dollars than higher education.*

The states with the largest increases in state appropriations for higher education were all in the South: **Mississippi** (+39.8%), **Georgia** (+15.8%) and **Alabama** (+14.4%). Last year **Georgia** lead the states in increased state appropriation--up 12.7 percent over FY1993.

Seven states have so far reported reductions in state appropriations for higher education. The losers are **Washington** (-5.2%), **Montana** (-3.8%), **Texas** (-2.4%), with **Alaska, Kansas, New Jersey** and **Vermont** each reporting reductions of 1.0 to 1.6 percent for FY1995 compared to FY1994. Both **Vermont** and **Washington** reported reductions in state tax fund appropriations for both FY1994 and FY1995.

OPPORTUNITY will report the final and more comprehensive revenue and expenditure tabulations from the National Conference of State Legislatures when they become available.

State Appropriations for Need-Based Student Grants

While states increased state appropriations for higher education by 4.3 percent for FY1995, state appropriations for the largest need-based undergraduate student financial aid programs were increased by 8.5 percent. This follows a 12.2 percent increase for these programs in FY1994.

This differential support follows a pattern underway since at least 1970 as states shift their higher education investments away from institutions--where they are allocated more or less equally to all students regardless of financial need--to students who demonstrate financial need for such assistance.

In the following table we have classified state need-based undergraduate grant programs into three groups based on student populations served. The first group of state programs are those serving needy undergraduate students in both public and private institutions. Nearly 90 percent of state dollars are provided to students in such programs, and states increased funding for such programs by 6.0 percent over FY1994. The largest percentage increases in state funding were in **Kentucky** (+43.2%), **Florida** (+25.3%), **Tennessee** (+23.9%) and **New York** (+21.9%).

FY1995 State Grant Program Funding

State	Grant Program	1992-93 Awards	1992-93 Payout (000)	1992-93 Mean Award	1992-93 Maximum Award	1993-94 Awards	1993-94 Payout (000)	1993-94 Mean Award	1993-94 Maximum Award	1994-95 Awards	1994-95 Payout (000)	1994-95 Mean Award	1994-95 Maximum Grant	Payout Change FY94-FY95
A. All undergraduates eligible.														
New York	Tuition Assistance Program	292,401	$584,285	$1,998	$4,050	294,000	$606,849	$2,064	$4,050	298,000	$615,780	$2,066	$4,050	1.5%
Illinois	Monetary Award Program	110,200	$201,000	$1,824	$3,500	119,000	$213,209	$1,792	$3,500	119,000	$243,800	$2,049	$3,800	14.3%
Pennsylvania	State Grants Program	128,535	$171,838	$1,337	$2,400	132,441	$188,750	$1,425	$2,500	142,000	$209,300	$1,474	$2,600	10.9%
California	Cal Grant A	40,286	$94,211	$2,339	$4,452	42,617	$140,474	$3,296	$5,250	45,249	$148,884	$3,290	$5,250	6.0%
New Jersey	Tuition Aid Grants	51,000	$99,774	$1,956	$4,500	52,000	$123,190	$2,369	$5,030	54,000	$126,000	$2,333	$5,210	2.3%
Minnesota	State Grant Program	50,993	$82,045	$1,345	$5,848	67,000	$99,300	$1,482	$5,889	66,000	$94,300	$1,387	$5,889	-5.0%
Ohio	Instructional Grants	84,224	$62,300	$740	$3,468	80,000	$74,000	$925	$3,606	85,000	$78,000	$918	$3,750	5.4%
California	Cal Grant B	32,268	$53,185	$1,648	$5,648	32,493	$71,304	$2,194	$6,660	32,493	$71,304	$2,194	$6,660	0.0%
Indiana	Higher Ed/Freedom of Choice	55,846	$55,414	$992		55,846	$55,414	$992		56,792	$63,195	$1,113	$4,106	14.0%
Washington	State Need Grants	22,071	$22,366	$1,013	$2,067	38,000	$45,950	$1,209	$2,625	38,000	$51,500	$1,355	$2,740	12.1%
Florida	Student Assistance Grants	34,243	$25,683	$750	$978	42,918	$30,723	$716	$1,030	41,537	$38,496	$927	$1,200	25.3%
Massachusetts	General Scholarships	33,400	$35,201	$1,054	$2,500	32,600	$34,309	$1,052	$2,500	33,500	$35,300	$1,054	$2,500	2.9%
Michigan	Competitive Scholarships	25,764	$32,286	$1,253	$1,200	26,982	$31,713	$1,175	$1,200	27,000	$32,000	$1,185	$1,200	0.9%
Tennessee	Student Assistance Awards	19,388	$14,270	$736	$1,482	19,497	$15,712	$806	$1,482	26,104	$19,420	$744	$1,482	23.6%
Kentucky	College Access Grants	21,795	$13,009	$597	$700	17,440	$12,630	$724	$840	21,800	$18,083	$829	$960	43.2%
Maryland	General State Scholarships	11,104	$12,951	$1,166	$2,500	13,000	$16,161	$1,243	$2,500	14,800	$17,821	$1,204	$2,500	10.3%
New York	Part-Time Study	22,337	$11,100	$497	$2,000	22,337	$12,000	$537	$2,000	27,000	$14,630	$542	$2,000	21.9%
Oregon	Need Grants	15,633	$11,943	$764	$1,920	13,260	$12,165	$917	$3,150	14,380	$13,634	$948	$3,180	12.1%
Oklahoma	Tuition Aid Grants	16,908	$13,265	$785	$1,000	16,849	$13,350	$792	$1,000	16,850	$13,350	$792	$1,000	0.0%
New Jersey	Educational Opportunity	13,481	$10,897	$808	$1,950	12,000	$11,661	$972	$1,950	12,394	$12,380	$999	$1,950	6.2%
Missouri	Student Grants	8,828	$10,883	$1,233	$1,500	8,779	$11,075	$1,262	$1,500	9,400	$11,855	$1,261	$1,500	7.0%
Vermont	Incentive Grants	8,935	$9,791	$1,096	$4,950	9,053	$9,657	$1,067	$5,050	8,796	$10,235	$1,164	$5,200	6.0%
Rhode Island	Scholarship & Grant Prog	12,581	$8,263	$657	$800	13,700	$6,500	$474	$1,000	12,500	$7,200	$576	$900	10.8%
Subtotal		1,122,221	$1,635,960	$1,458		1,161,812	$1,836,096	$1,580		1,204,595	$1,946,467	$1,616		6.0%
Percent of Total		88.9%	90.1%			87.3%	90.2%			86.7%	88.1%			
B. Private undergraduates eligible														
Michigan	Tuition Grants	28,794	$42,955	$1,492	$1,965	29,171	$41,345	$1,417	$1,900	30,000	$42,000	$1,400	$1,975	1.6%
Iowa	Tuition Grant Program	14,111	$30,965	$2,194	$2,650	14,200	$31,524	$2,220	$2,650	14,410	$32,422	$2,250	$2,650	2.8%
Texas	Tuition Equalization Grants	17,784	$24,508	$1,378	$3,684	16,958	$27,500	$1,622	$3,684	16,200	$27,500	$1,698	$3,815	0.0%
So Carolina	Tuition Grants	6,606	$16,248	$2,460	$3,990	8,375	$16,097	$1,922	$2,890	8,500	$16,442	$1,934	$3,030	2.1%
Wisconsin	Tuition Grants	8,751	$14,127	$1,614	$2,172	8,841	$16,333	$1,847	$2,172	8,650	$16,050	$1,855	$2,172	-1.7%
Connecticut	Ind Col Student Grants	3,800	$12,055	$3,172	$6,700	3,718	$12,055	$3,242	$6,700	3,718	$12,055	$3,242	$6,262	0.0%
Kentucky	Tuition Grant Program	6,760	$7,450	$1,102	$1,200	6,360	$8,081	$1,271	$1,200	7,500	$8,441	$1,125	$1,200	4.5%
Subtotal		86,606	$148,308	$1,712		87,623	$152,935	$1,745		88,978	$154,910	$1,741		1.3%
Percent of Total		6.9%	8.2%			6.6%	7.5%			6.4%	7.0%			
C. Public undergraduates eligible														
Georgia	HOPE Grants	0	$0	$0	$0	25,903	$14,275	$551	$1,800	40,000	$73,600	$1,840	$2,700	415.6%
Wisconsin	Higher Educ Grants	39,982	$21,280	$532	$1,800	42,366	$23,252	$549	$1,800	43,500	$25,146	$578	$1,800	8.1%
Massachusetts	Cash Grants	13,000	$10,000	$769	Tuition	13,000	$10,000	$769	Tuition	13,000	$10,000	$769	Tuition	0.0%
Subtotal		52,982	$31,280	$590		81,269	$47,527	$585		96,500	$108,746	$1,127		128.8%
Percent of Total		4.2%	1.7%			6.1%	2.3%			6.9%	4.9%			
TOTAL		1,261,809	$1,815,548	$1,439		1,330,704	$2,036,558	$1,530		1,390,073	$2,210,123	$1,590		8.5%

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Only Minnesota reduced its program for FY1995 compared to FY1994.

The second group of state need-based undergraduate grant programs are those limited to students attending private higher educational institutions--to help equalize the tuition difference between subsidized public institutions and unsubsidized private institutions. These programs were not well treated in most states--the average increases in state funding was 1.3 percent for FY1995 over FY1994. The largest percentage increase was in the smallest program--Kentucky at 4.5 percent.

The third group of state need-based undergraduate grant programs includes only three, and the statistics are dominated by those of a single state as described below.

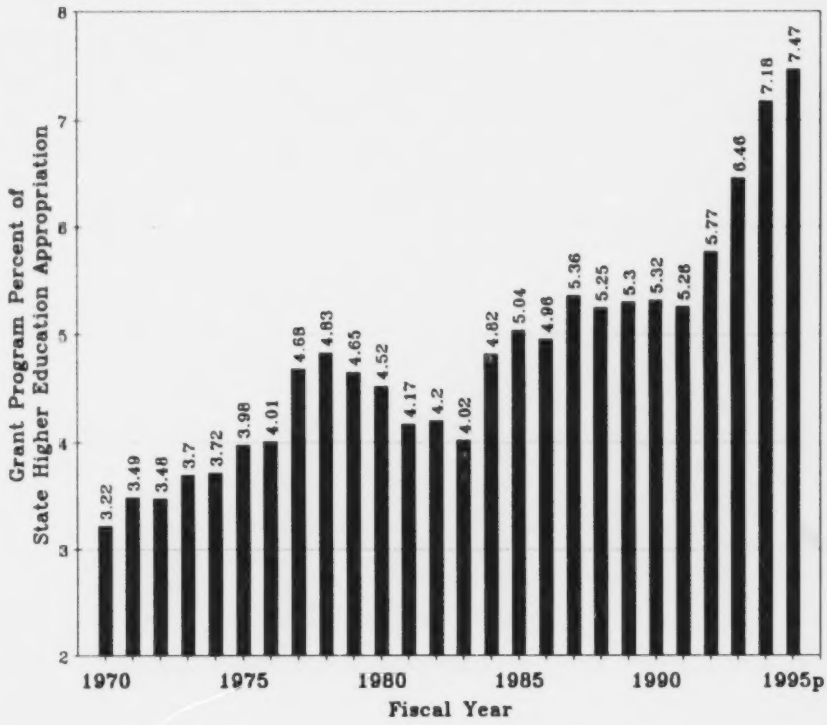
HOPE for Georgians

Each year one state stands out from the rest by its extraordinary increase in state financing of undergraduate student aid. For FY1994 Washington got religion. For FY1985 Georgia saw the light. Remember also in reading this that Georgia ranked first among the states in increased state appropriations for higher education for FY1994, and second in FY1995.

Four programs--distinguished from each other by their four distinct target populations--are combined under the rubric of HOPE, or Helping Outstanding Pupils Educationally. Financed by the Georgia Lottery for Education, HOPE's four programs and targets are:

- **HOPE for Students Attending a Georgia Public College or University:** Georgia high school graduates from 1993 or later who earned a B average in high school and whose family incomes are less than $100,000 per year are eligible for awards of up to tuition, fees and a book allowance. The award equals tuition plus fees plus $100 per quarter for books less Pell Grant less any other federal grant received by the student. This means that students can receive awards up to $2700 for family incomes up to $100,000 per year. These HOPE scholarships are renewable through the senior year.
- **HOPE for Students Attending Georgia Public Technical Institutions:** Georgia residents attending a Georgia public technical institute to earn a certificate or diploma are eligible for a HOPE grant regardless of year of high school graduation, grade average, or family income. The award covers tuition, fees, and a book allowance, less the federal Pell Grant and other federal grants.
- **HOPE for Students Attending Georgia Private Colleges or Universities:** Students eligible for the Georgia Tuition Equalization Grant of $1000 may receive an additional $1000 from the HOPE Scholarship Program. These awards are not need-tested, nor are date of high school graduation or grade averages considered for eligibility.
- **HOPE for GED Recipients at Georgia Postsecondary Institutions:** Vouchers worth $500 are awarded to General Education Development (GED) certificate recipients for use toward paying tuition, books, and other education-related expenses at a Georgia postsecondary institution. These vouchers are not need-based, there is no family income restriction, and students may enroll part-time. The HOPE voucher can be used in addition to another HOPE award.

State Grant Program Appropriations as a Proportion of State Appropriations for Higher Education FY1970 to FY1995



Pell Grant Program Participation by State 1992-93

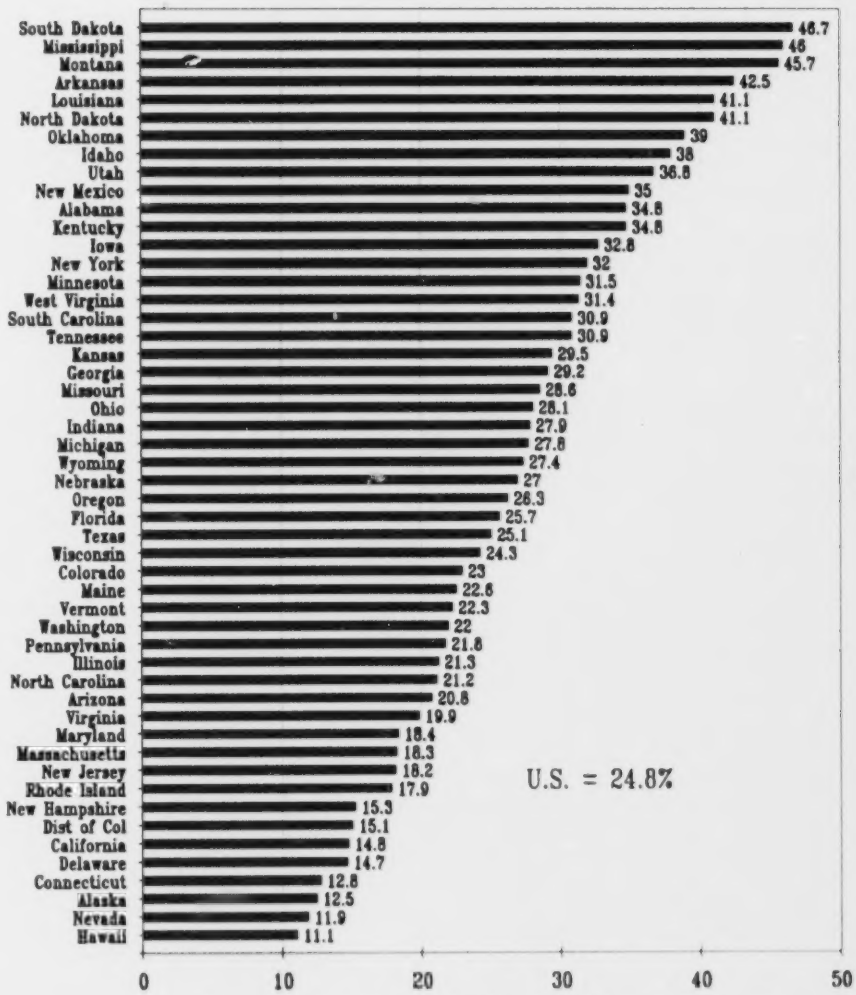
The federal Pell Grant program has served as the foundation for financial aid packages for students from low income family backgrounds since its inception in 1973-74. While loans have replaced grants as the dominant source of student aid funding during the last 15 years, the Pell Grant remains the cornerstone of the financial aid package for these students.

The idea for a federal grant targeted on students from low income family backgrounds came out of that fertile period of domestic social legislation in 1964 and 1965 known as the War on Poverty. The platform of the War on Poverty had three planks: to increase the human capital of the poor by investing in their health and education, to remove artificial and irrelevant barriers (such as race) to economic opportunity, and to stimulate economic activity so that new jobs would be created as the poor completed their educations ready to enter the labor force.

The Educational Opportunity Grant (EOG) was a product of this period. Administered by colleges and universities, it encouraged institutions to recruit and support students from low income family backgrounds. In 1972 Congress revisited the issue and redesigned its student assistance programs. EOG became SEOG, or Supplemental Educational Opportunity Grants, and a new federally administered program of Basic Educational Opportunity Grants (BEOG) was created and targeted on the poor. This program was renamed the Pell Grant Program in honor of Senator Pell of Rhode Island, one of its founders.

The Pell Grant program provided nearly $6.2 billion in grants to about 4.0 million financially needy undergraduate students in 1992-93. It remains today the foundation of the financial aid package for students from low income families.

Pell Grant Program Participation by State, 1992-93



Here we update reports presented in **OPPORTUNITY** in past issues about the distribution of Pell Grants by state using the latest available data for the 1992-93 award year from the Department of Education central processing system.

These data show that states vary widely in the proportion of their undergraduate higher education

Pell Grant Program Summary Statistics

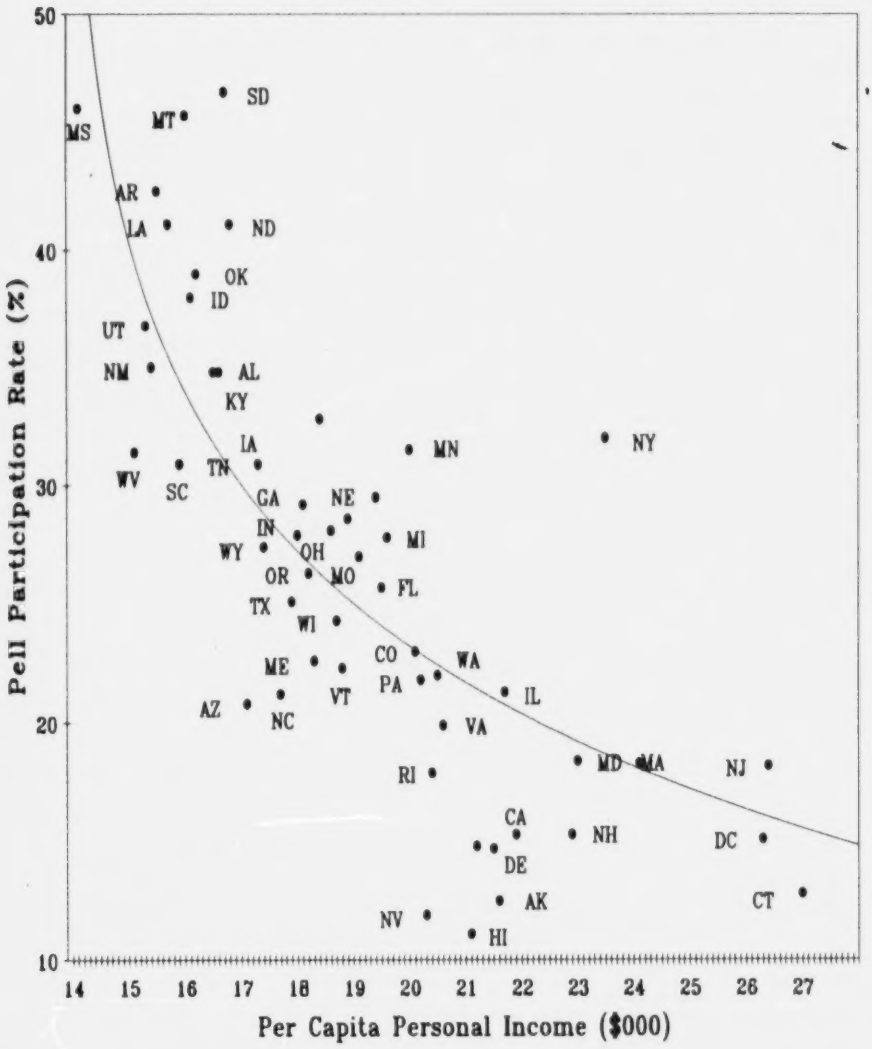
FFY1974 to FFY1993

Award Year	Applications			Elgbl Apps	Recipients				Formula	Maximum Grant		Min Grant	Cost Cap	Funding Level
	Official(K)	Valid(K)	Eligible(K)		Numbr(K)	Expnd(M)	Mean	Indep		Authrizd	Funded			
73-74	512.9	482.3	268.4	F	176.0	$47.6	$270	13.3%	Pell	$1,400	$452	$50	50%	StepRed
74-75	1,304.9	1,114.1	681.6	FS	567.0	358.4	628	21.9	Pell	1,400	1,050	50	50	StepRed
75-76	2,339.3	2,178.7	1,455.2	FSJ	1,217.0	926.0	761	29.8	Pell	1,400	1,400	200	50	Full
76-77	3,590.4	3,408.7	2,258.0	Ug	1,944.0	1,475.4	759	38.3	Pell	1,400	1,400	200	50	Full
77-78	3,844.0	3,621.6	2,390.3	Ug	2,011.0	1,524.3	758	38.5	Pell	1,800	1,400	200	50	Full
78-79	3,885.4	3,401.4	2,228.6	Ug	1,893.0	1,540.9	814	36.7	Pell	1,800	1,600	50	50	StepRed
79-80	4,186.7	3,868.4	3,029.7	Ug	2,537.9	2,357.2	929	33.8	Pell	1,800	1,800	200	50	Full
80-81	4,825.4	4,475.8	3,330.5	Ug	2,707.9	2,387.1	882	40.6	Pell	1,800	1,750	150	50	$50Flat
81-82	4,945.8	4,614.6	3,398.2	Ug	2,709.1	2,300.0	849	41.9	Pell	1,900	1,670	120	50	$80Flat
82-83	5,118.6	4,709.2	3,341.4	Ug	2,522.7	2,420.5	959	45.9	Pell	2,100	1,800	50	50	StepRed
83-84	5,453.5	4,955.8	3,541.2	Ug	2,758.9	2,797.1	1,014	47.5	Pell	2,300	1,800	200	50	Full
84-85	5,514.0	4,981.4	3,558.4	Ug	2,747.1	3,053.0	1,111	48.6	Pell	2,500	1,900	200	50	Full
85-86	5,627.1	5,205.5	3,710.9	Ug	2,813.5	3,597.4	1,279	50.4	Pell	2,600	2,100	200	60	Full
86-87	6,028.3	5,535.7	3,769.6	Ug	2,659.5	3,460.0	1,301	53.9	Pell	2,600	2,100	100	60	LnrRed
87-88	6,297.6	5,714.2	3,812.8	Ug	2,881.5	3,754.3	1,303	57.5	Pell	2,300	2,100	200	60	Full
88-89	6,519.3	5,913.2	4,199.3	Ug	3,198.3	4,475.7	1,399	57.9	Pell	2,500	2,200	200	60	Full
89-90	6,778.0	6,165.3	4,347.7	Ug	3,322.2	4,777.8	1,438	59.0	Pell	2,700	2,300	200	60	Full
90-91	7,138.9	6,455.1	4,508.0	Ug	3,404.8	4,935.2	1,449	61.1	Pell	2,900	2,300	100	60	LnrRed
91-92	7,775.2	6,983.6	4,941.0	Ug	3,786.2	5,792.7	1,530	61.5	Pell	3,100	2,400	200	60	Full
92-93	8,248.1	7,365.2	5,243.1	Ug	4,002.0	6,175.9	1,543	62.1	Pell	3,100	2,400	200	60	Full
93-94		e7,673.1	e4,938.4	Ug	e3,743.0	e5,681.6	e1,518	e59.4	FM	3,700	2,300	400	100	Full
94-95		e8,143.3	e5,072.5	Ug	e3,820.4	e5,800.5	e1,518	e60.2	FM	3,900	2,300	400	100	Full
95-96		e8,643.4	e5,211.1	Ug						4,100				
96-97										4,300				
97-98										4,500				

Notes and sources:

Most of these data are updated and published annually in the Department of Education's *Pell Grant End of Year Report*. In addition, data on percent of Pell recipients who are independent and the Percent of Cost of Attendance Cap were published by The College Board in *Trends in Student Aid: 1982 to 1992*. e data are estimates provided by Steve Carter, U. S. Department of Education.

Pell Grant Program Participation Rate Compared to Per Capita Personal Income by State, 1992



enrollment that receive Pell Grants and use them to finance their higher educations. This variability across states is related heavily to differences in per capita personal incomes across the states, with the poorer states participating in the Pell Grant program at higher rates than more affluent states.

In this report we also examine changes in Pell Grant program participation by state over the last five years, and the migration of Pell Grant recipients across state boundaries in search of postsecondary opportunity.

Pell Grant Program

Through the 1992-93 award year, the Pell Grant program has made nearly 50,000,000 grants totalling over $58,000,000,000 to undergraduate students. Although the program started out serving traditional dependent students primarily, now the program serves primarily older students no longer dependent on their parents for financial support. For the 1992-93 award year grants ranged from the minimum of $200 to the funded maximum of $2400, although the maximum grant authorized in statute was $3100. (More about the Pell Grant maximum award shortly.)

Pell Grant Program Participation

We calculate the rate at which students participate in the Pell Grant program in each state by dividing the number of Pell Grant recipients in public and private non-profit higher education institutions for the 1992-93 award year by the number of undergraduates enrolled in public and private non-profit colleges and universities for the fall term of 1992. The resulting rates are charted on the first page of this report.

This calculation does not include Pell Grant recipients enrolled in private for-profit educational organizations such as trade schools only because we lack fall enrollment data against which to measure their participation. This omission is substantial: for 1992-93 there were about 2.6 million Pell Grant recipients enrolled in public institutions, 0.7 million Pell recipients enrolled in private non-profit institutions, and another 0.7 million Pell recipients enrolled in private for-profit organizations. The states with the largest numbers of Pell recipients in for-profit schools were **California** (100,110), **New York** (62,839), and **Texas** (52,907).

For 1992-93, Pell Grant program participation by undergraduates in public and private colleges and universities ranged from 11.1 percent in **Hawaii** to 46.7 percent in **South Dakota**. In Hawaii 4,723 of the 42,799 undergraduates in public higher education received Pell Grants--the lowest rate for public institutions among the 50 states (plus the District

of Columbia). Similarly, just 1172 of the 10,213 students enrolled in private non-profit institutions in Hawaii received Pell Grants. An additional 719 Pell Grants went to students enrolled in for-profit private educational organizations in Hawaii in 1992-93.

At the other extreme, 12,935 of the 25,866 undergraduates enrolled in South Dakota's public institutions received Pell Grants for 1992-93, and 2,370 of the 6,922 undergraduates enrolled in South Dakota's private colleges received Pell Grants.

Differences Across States

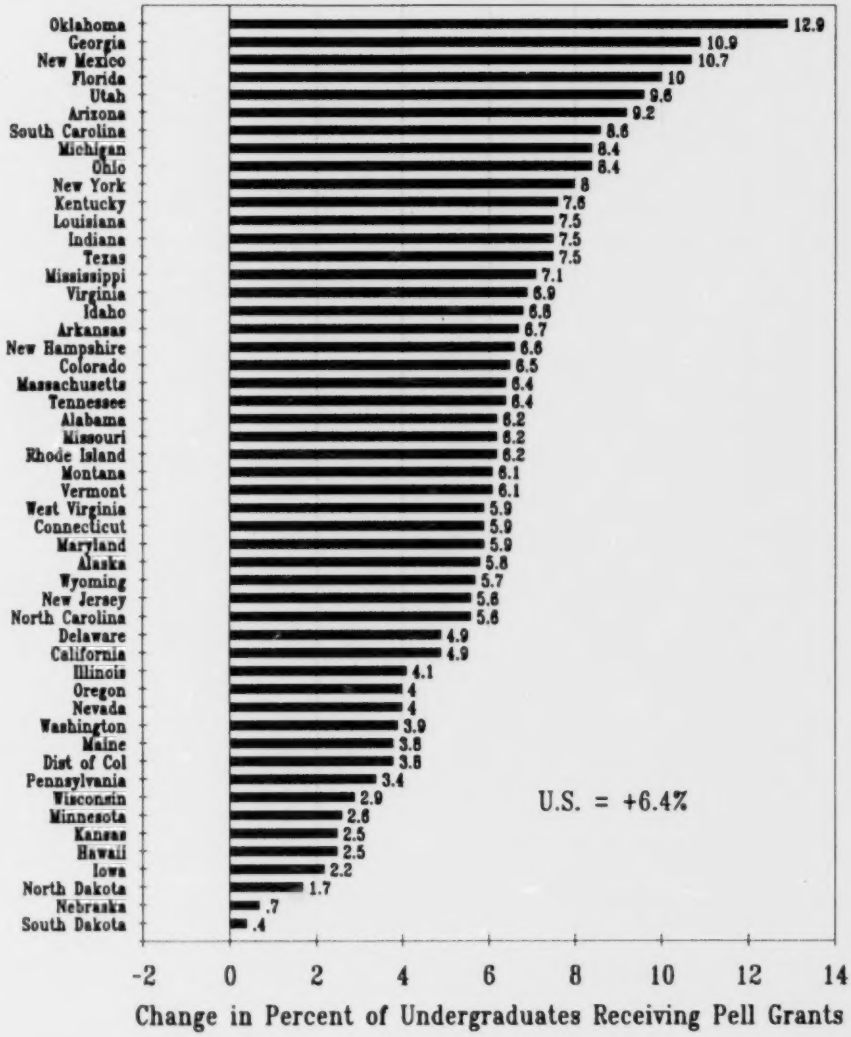
Because the Pell Grant program is geared toward providing grants to students from low income family backgrounds, those states with larger shares of low income families are likely to have larger shares of enrolled undergraduates with Pell Grants.

For example, **Connecticut** had the highest per capita personal income in 1992 at $26,979, and 12.8 percent of enrolled undergraduates received Pell Grants.

At the other extreme, **Mississippi** had the lowest per capita personal income among the states at $14,088, and 46.0 percent of its undergraduate students received Pell Grants.

As shown in the scatter plot, the relationship between state per capita personal income and Pell Grant program participation is strong, but does not explain all of the variation between states. Apparently other factors--probably including employment opportunities, capacity in higher education institutions, proprietary school enrollment opportunities, other affordability issues, and less quantifiable social values such as appreciation for higher education--influence the enrollment of low income populations in public and private higher education institutions. We have not explored these differences here.

Change in Pell Grant Program Participation by State, 1987-88 to 1992-93

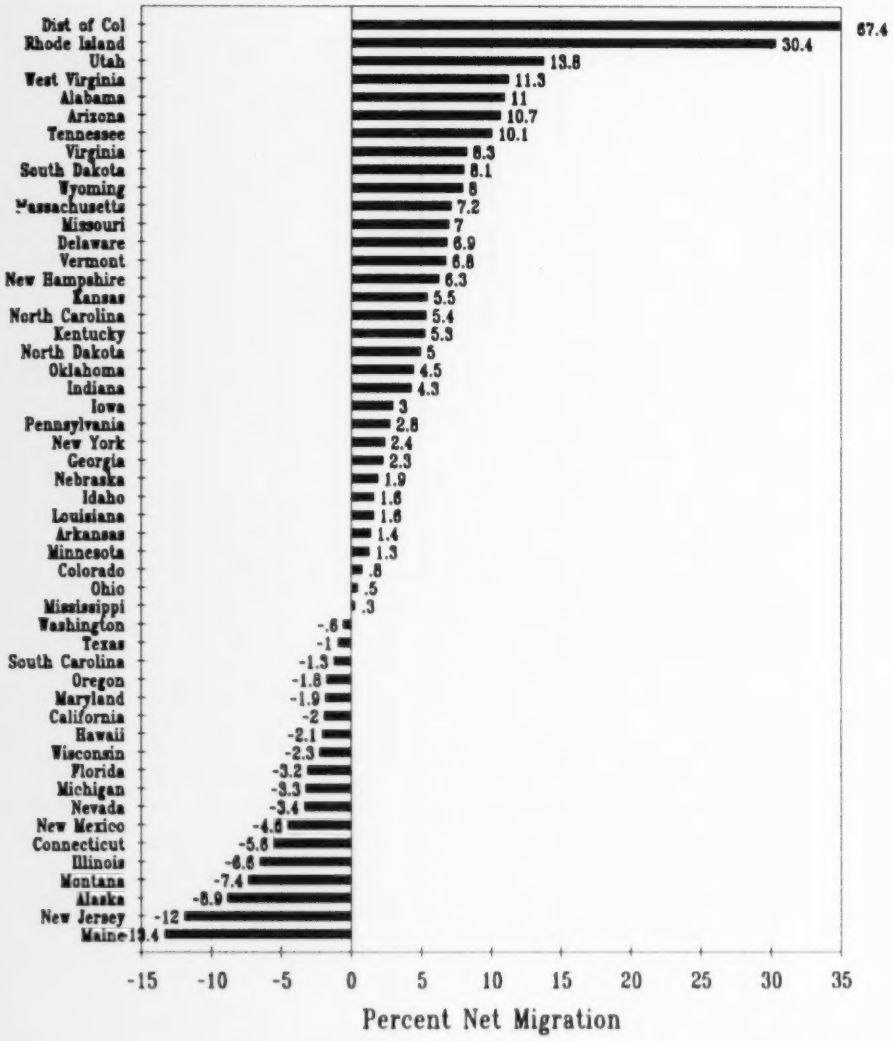


Changes Within States

Over time Congress makes changes to the Pell Grant program, economic activity within states fluctuates on somewhat different cycles, and student populations change. Over the five years between 1987-88 and 1992-93, all states saw an increase in the proportion of their undergraduates enrolled with Pell Grants. This increase averaged 6.4 percent. However, some states saw larger gains than did others.

At the extremes **South Dakota** saw an increase in the proportion of enrolled undergraduates with Pell Grants of 0.4 percent, compared to an increase of 12.9 percent in **Oklahoma** between 1987-88 and 1992-93. During this

Net Migration of Pell Grant Recipients 1992-93



five year period, per capita personal income increased 33.4 percent in South Dakota and 28.5 percent in Oklahoma.

One of the advantages of a centrally administered, standardized program is illustrated here: as different sections of the country experience economic recession, Pell Grant program resources will automatically reallocate from prospering states toward states with weak or deteriorating economic activity. Neither Congressional nor bureaucratic intervention will alter this shift of funding toward circumstances of highest financial need.

Net Migration of Pell Grant Recipients

Students migrate from one state to another in search of higher educational opportunity, and Pell Grant recipients are no exception. While the national sum is zero, some states attract many more Pell Grant recipients to their postsecondary institutions than they export, and in other states the reverse is true.

The "states" that import more Pell Grant recipients than they export are led by the **District of Columbia** (+67.4%) and **Rhode Island** (+30.4%). The District of Columbia, for example had 6588 of its own residents receiving Pell Grants, but institutions in the District of Columbia enrolled 11,031 students with Pell Grants. The states with the largest net *numerical* gain in Pell Grant recipients were **New York** (+8627), **Alabama** (+8191), **Tennessee** (+7256) and **Arizona** (+7113).

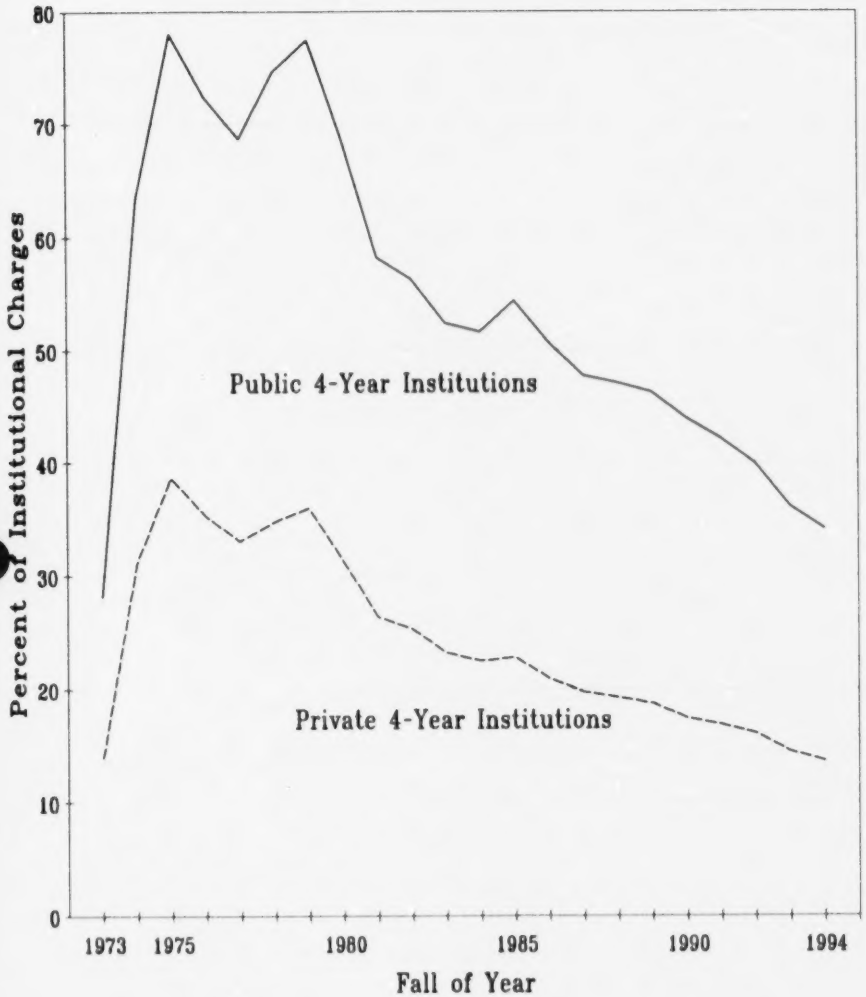
The states that export more Pell Grant recipients than they import include **Maine** (-13.4%), **New Jersey** (-12.0%), **Alaska** (-8.9%), **Montana** (-7.4%) and **Illinois** (-6.6%). Illinois had the largest *number* of net exports: 11,036 more Pell Grant recipients left the state to attend a postsecondary institution than came there from other states. Other states with large numbers of net emigrants were **New Jersey** (-9825), **Florida** (-6087) and **Michigan** (-5387).

Maximum Pell Grant

While the Pell Grant program is targeted on students from lowest income family backgrounds, the largest grants available to such students have never covered all costs of college attendance for even the neediest students. Financial aid packages have always been required to help such students finance their college attendance costs.

More important, the largest Pell Grants--available only to those students deemed unable to contribute anything toward their college budgets--have lost substantial purchasing power since the 1979-80 academic year.

Proportion of Institutional Charges Covered by Pell Grant Maximum Award 1973-74 to 1994-95



For example, the largest Pell Grant available to a student from a low income family in 1979 was $1800, which would have paid 77.4 percent of the national average of $2327 in institutional charges (tuition, fees, room and board) at a public 4-year college or university. By 1994-95 the maximum Pell Grant had increased by $500 to $2300. However, the national average institutional charges at a public 4-year institution had increased by $4422 to $6749. Consequently the largest Pell Grant will cover only 34.1 percent of institutional charges at an average cost public 4-year institution this year. The balance is left for other forms of aid--mainly loans and other forms of self-help--to finance the rest.

If the Pell Grant maximum award available to students from the lowest income families were to pay the same proportion of institutional charges in 1994-95 that it covered in 1979-80, then instead of a maximum of $2300 the largest Pell Grant would be $5224 for low income undergraduates in public 4-year colleges and universities.

At a private 4-year college or university, the $1800 Pell Grant maximum award available to students with the lowest family incomes covered 35.9 percent of institutional charges in 1978-79. The national average charges at these institutions was $5013 then. By 1994-95, when the Pell Grant maximum had increased by $500, institutional charges had increased by $11,956. As a result the largest Pell Award of $2300 for 1994-95 now covers only 13.6 percent of institutional charges. If the largest Pell Grant covered the 1979-80 share of costs in 1994-95, it would have to be $6092. The shortfall has been made up in private institutions by increased student aid and enormous increases in student debt.

Policy Issues

By any measure of effectiveness, the Pell Grant program is a mere shadow of its former self from the 1970s. Its popularity has contributed to this erosion. Relative to announced federal policy objectives to equalize higher educational opportunity across family income levels, that opportunity is now more unequally distributed than it has been at any time during the last 24 years according to Census Bureau data.

The dilution of effectiveness has been the product of many forces, among them:

- Congressional efforts to extend eligibility without adding resources,
- Federal budgeting, shifting financial aid from grants to loans to try to appear to save money,
- Growth in older student populations in higher education as a result of social and labor force changes for which additional funding was not provided,

- Cost-shifting from state taxpayers to tuition charged to students in state-financed institutions, and
- Broadened participation in higher education--without increased Pell Grant funding--as labor market and military career alternatives deteriorate or decline for young people.

As the Pell Grant program limps along, opportunities to restore it's effectiveness appear from time to time. The last reauthorization in 1992 was a missed opportunity, but federal Title IV student aid programs will come up for review and reauthorization again in 1998.

The Congressionally-chartered National Commission on Responsibilities for Financing Postsecondary Education offered its recommendations in February 1993. Two key recommendations were:

- Make federal student aid a reliable and comprehensible source of college assistance for all Americans by developing a new concept called the Student's Total Education Package (STEP), which links to a national Norm the total amount of federal aid any full-time undergraduate college student may receive annually.
- Remove uncertainty from the Pell Grant program by ensuring that all eligible students receive grants at levels authorized by federal law and by tying future maximum grant levels to what students pay for college.

The STEP foundation would be $14,000, which is a weighted national average per-student expenditure at all four-year institutions. This amount would be adjusted annually. The authorized Pell Grant maximum award for 1994-95 is $3900. Department of Education officials have expressed concern about the costs of these proposals as the federal budget is currently is receiving some long-overdue attention to balancing revenues and expenditures.

Currently the Department of Education is pursuing a Student Aid Reform - Phase II agenda (Phase I was direct lending). Topics under discussion are:

- How should postsecondary vocational training be financed?
- Should federal aid, particularly grants, be better targeted?
- Should a federal aid maximum be established?
- Should the student financial aid programs be reconfigured?
- What measures should be used to assess and improve the effectiveness of the student aid programs?

The Department's process involves meetings to gather input on these questions and could produce recommendations by March of 1995.

The College Board and the Brookings Institution launched a series of meetings in November 1993 to focus on the topic "Improving Public Policies to Help Students Pay for College." The announced goal of this project is to "go back to first principles in the design of student aid polices, look at those policies in light of changing social and economic conditions in the 1990s and beyond, and generate proposals for improvement. Such proposals might or might not influence Phase II reforms, the 1998 reauthorization, or the next reauthorization after that." The initial product of this effort will be an invitational colloquium to be held October 26 in Washington, DC.

A Commitment to Focus

In the past (June 1993) we have offered our own recommendations to restore a focus to the Pell Grant program without increasing federal budget obligations. We believe that focus is properly on those for whom the program was created--students from the lowest family income backgrounds. These are students for whom loans are not appropriate substitutes, especially at the beginning of their postsecondary careers. Our proposals, which may be considered individually or in combination, are:

- Restore the original Pell Grant eligibility formula by deleting liberalized eligibility formula changes made in 1978, 1986, and 1992.
- Limit Pell Grant eligibility to the first two years of postsecondary education.
- Use federal Pell Grants to leverage state resources for increased federal/state need-based grants.
- Sharply truncate the Pell Grant payment schedule to eliminate least needy students and add these funds to the grants for those who are most needy.
- Limit Pell Grant eligibility to those less than 24 years of age.
- Limit Pell Grant eligibility to full-time students.

These proposals in several cases delete students added to the program since inception. In all cases these remain truly needy students. Such are the choices that result if one accepts the view that significant incremental resources are not available to restore federal student aid programs to prior levels of effectiveness.

However, as we pointed out in last month's OPPORTUNITY, the federal government has *reduced* its funding commitment to student financial aid by about $4 billion since 1980. Restoring student financial aid funding commitments made in the past would not only eliminate the need to delete truly needy students to increase benefits for a targeted population, but the $4 billion could be restored to the Pell Grant program to greatly improve college affordability for all currently eligible needy student populations.

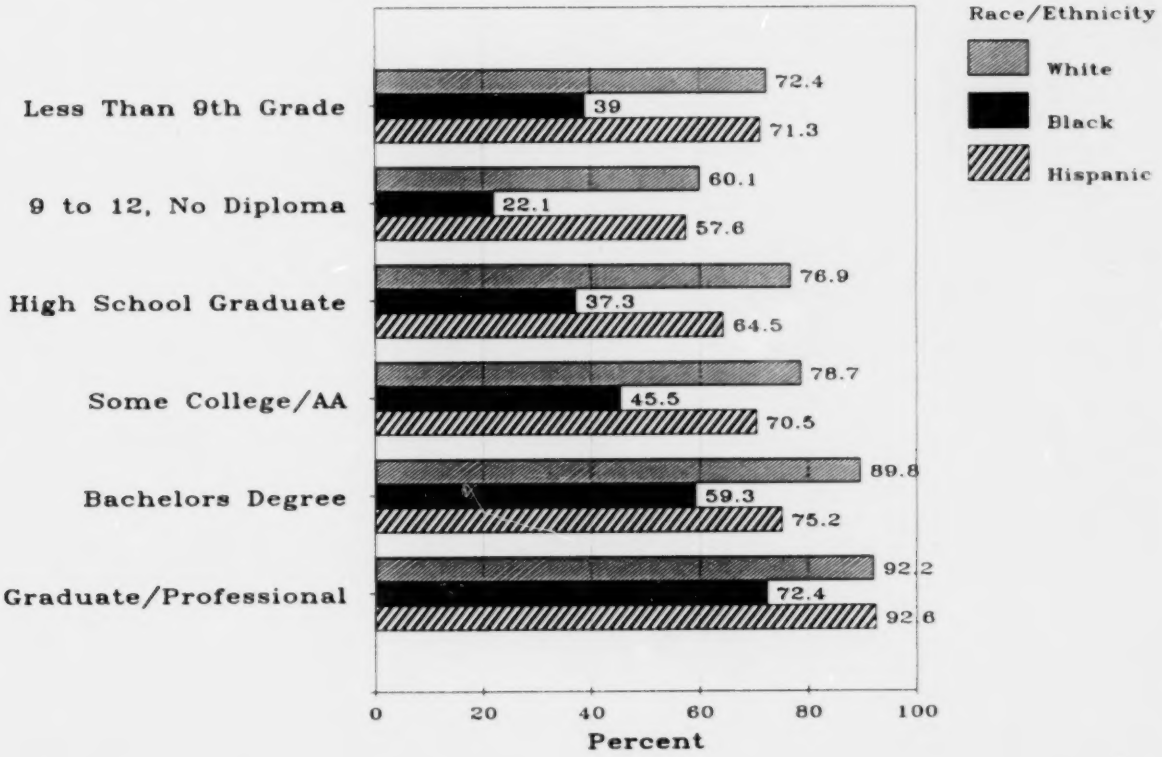
The choices and decisions remain to be made. Vehicles are in place to make them.

Think About This for a While . . .

Children Living With Both Parents

According to a recent Census Bureau report from the Current Population Survey, 27.5 percent of all children living with parents lived with only one parent--most of these with the mother. That is, 72.5 percent were living with two parents. As shown below, this proportion varies substantially between racial/ethnic groups and by educational attainment of the parents. Only about half of children living with parents who were high school drop-outs lived with both parents, and this proportion rose to 91 percent of children living with both parents where at least one had a graduate or professional degree. By racial/ethnic groups, black children were least likely to be living with both parents, and white children were most likely. School teachers and principals report that children in single-parent families receive less home work supervision, less supervision at home, fewer parents volunteering in the schools and more frequent discipline problems.

Children Living with Both Parents
by Educational Attainment of Parent and Race/Ethnicity
1993



Saluter, A. F. May 1994. *Marital Status and Living Arrangements: March 1993.* U.S. Bureau of the Census, Current Population Reports, Series P-20-478, Table 6. Washington, DC: U.S. Government Printing Office.

Early Announcement . . .

Twelfth Annual NASSGP/NCHELP Financial Aid Research Conference
June 8-10, 1995, Minneapolis, Minnesota

Early planning for next spring's annual student financial aid research conference has begun with NASSGP Research Committee Chair Jerry Davis issuing an invitation to Research Network members to consider serving on the Conference Planning Committee.

Each year the Research Network issues a call for proposals for presentations at the conference. Proposals may address any aspect of research on financial aid for college students at the federal, state, private or institutional level. That call will go out later this fall, with proposals reviewed by the Conference Planning Committee in January or February when the agenda is set.

Those considering attending the 1995 Conference should mark their calendars now, and then begin thinking of research they would either like to present themselves or see presented by others working in this vital area of social policy. Those familiar with student financial aid may also wish to consider volunteering for service on the Conference Planning Committee when it meets in Washington, DC, after the first of the year.

Current members of the Conference Planning Committee, who may be contacted concerning the Conference and Planning for it in Minneapolis next June are:

Lutz Berkner (510) 849-4942
MPR Associates, Berkeley, CA

Timothy A. Christensen (202) 785-0453
NASFAA , Washington, DC

Jerry S. Davis (202) 333-8000
Sallie Mae, Washington, DC

Frederick Franko (202) 785-0453
NASFAA, Washington, DC

Jamie P. Merisotis (202) 588-8383
Institute for Higher Education Policy, Washington, DC

Thomas G. Mortenson (319) 351-4913
Postsecondary Education OPPORTUNITY, Iowa City, IA

Thomas D. Parker (617) 426-0681
TERI Service, Boston, MA

Gerald Setter (612) 296-9690
Minnesota Higher Education Coordinating Board, St. Paul, MN

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Postsecondary Education
OPPORTUNITY

The Mortenson Research Letter on Public Policy Analysis of Opportunity for Postsecondary Education

Number 28 **Iowa City, Iowa** **October 1994**

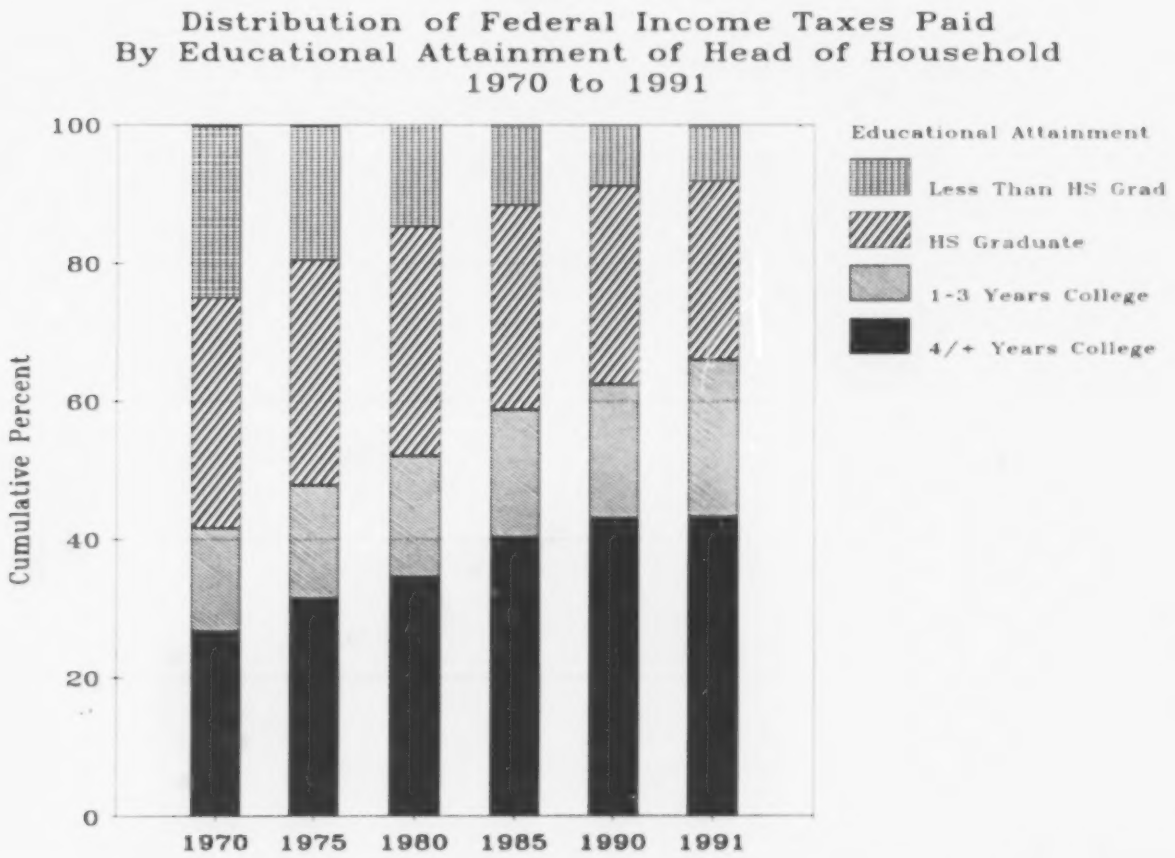
Biting the hand . . . *. . . that feeds*

Federal Income Taxes Paid by College Educated Workers 1970 to 1991

The most striking paradox in public finance of higher education in America today is this:

> *While federal and state governments are increasingly dependent on the tax revenues paid by college educated workers, both federal and all 50 state governments have substantially reduced the share of government resources invested in higher education over the last 15 years. This paradox flies in the face of economic investment criteria that require that investment resources be allocated to achieve the highest rate of return to attain the greatest increase in social welfare.*

Instead prisons and Medicaid get the lion's share of growth in public budgets, with a declining share allocated to those social investments--such as higher education--that brighten future prospects.



In any economic investment model directed toward maximizing human welfare, resource allocators are obliged to shift resources toward those investments that offer the highest rates of social return and away from those that offer the least social return on invested resources to maximize social welfare.

American governments--federal and all 50 states--have decided in their collective wisdom that our highest social program returns are gained from locking up in prison a huge and growing share of the population of young males (see separate analysis "Infatuation with Incarceration" later in this issue), and in providing open-ended state appropriations for health care for the poor. Neither population--prisoners nor welfare recipients--has much postsecondary education. To the extent that investments and incentives are shifted toward unproductive social investments, and denied to alternate social investments that offer higher social rates of return, our future social welfare is diminished.

In this analysis we examine the share of federal individual income taxes paid by households headed by college educated workers over the years between 1970 and 1991. We combine data on household income collected by the Census Bureau with data on federal individual income taxes paid by levels of adjusted gross income.

This analysis was prompted by the suggestion of Dr. William Hiss, Vice President for Administrative Services and Dean of Admission at Bates College, Lewiston, Maine. The suggestion to do this was Bill's. Only *OPPORTUNITY* is responsible for the analysis and the conclusions drawn from it.

Data and Analysis

The data analyzed here come from two federal sources, the Census Bureau and the Internal Revenue Service.

Household income data by educational attainment of the head of the household are reported annually in the Census Bureau's P-60 series of reports on consumer income from the Current Population Survey.

U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 180, *Money Income of Households, Families, and Persons in the United States: 1991*, U.S. Government Printing Office, Washington, D.C., 1992.

The published data include the number of households at each level of educational attainment of the head and their average income. We multiply the two to get total income by household at each level of educational attainment of the head.

Federal income taxes paid by individuals are reported each year by the Internal Revenue Service. Data are reported on the number of returns filed, adjusted gross income by level, total income tax, and in many more detailed ways.

Internal Revenue Service, Publication 1304, *Individual Income Tax Returns 1990*, U.S. Government Printing Office, Washington, D.C., 1993.

We have used this information to calculate effective federal income tax rates at the published AGI intervals, then interpolated these rates at the average household income levels reported by the Census Bureau. We have performed these analyses for the years 1970, 1975, 1980, 1985, and 1990.

Beginning with the 1991 Current Population Survey, the Census Bureau redefined educational attainment from years of school completed to highest degree earned. We consider this a substantial improvement in reported data on educational attainment and

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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement
This research letter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this research letter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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Federal Income Taxes Paid by Educational Attainment of Head of Household 1991

Educational Attainment of Head	Households (000)	Average Income	Total Income (000,000)	Preliminary Federal Income Tax Rate	Federal Income Taxes Paid (000,000)
Less Than Ninth Grade	9,357 10.3%	$18,142	$169,755 4.8%	7.04%	$11,951 3.0%
9th to 12th Grade (No Diploma)	10,362 11.4%	$22,925	$237,549 6.7%	8.46%	$20,097 5.0%
High School Graduate	30,178 33.2%	$33,275	$1,004,173 28.5%	10.35%	$103,932 25.9%
Some College, No Degree	14,984 16.5%	$40,167	$601,862 17.1%	11.00%	$66,205 16.5%
Associate Degree	5,041 5.6%	$44,041	$222,011 6.3%	11.29%	$25,065 6.3%
Bachelor's Degree	13,137 14.5%	$56,134	$737,432 20.9%	12.60%	$92,916 23.2%
Master's Degree	5,211 5.7%	$63,375	$330,247 9.4%	13.60%	$44,914 11.2%
Doctorate Degree	955 1.1%	$79,902	$76,306 2.2%	15.37%	$11,728 2.9%
Professional Degree	1,586 1.7%	$91,765	$145,539 4.1%	16.32%	$23,752 5.9%
Total	90,810 100.0%	$38,816	$3,524,881 100.0%	11.36%	$400,560 99.9%
Any College	45.1%		60.0%		66.0%
Bachelor's Degree or More	23.0%		36.6%		43.2%

Sources:
Household data from *Money Income of Households, Families, and Persons in the United States, 1991*. Current Population Reports, Consumer Income, Series P-60, No. 180, Table 2. Estimated federal income tax rate derived from *Individual Income Tax Returns 1990*. Internal Revenue Service, Publication 1304, Table B.

therefore have estimated federal income taxes paid in 1991 under this new definition. To provide comparable data over the period from 1970 through 1991 we have provided what are roughly comparable classifications of educational attainment. The trends that become apparent are evident in the table on page 5.

One other data qualification is noted: total household income as collected by the Census Bureau and adjusted gross income on tax returns as collected by the Internal Revenue Service are not quite the same thing. However, they are quite close, as shown in the following table.

Comparison of Household Income with Adjusted Gross Income (billions)

Year	Total Household Income	Adjusted Gross Income
1970	$643.8	$610.3
1975	$1,004.0	$947.8
1980	$1,734.9	$1,613.7
1985	$2,571.1	$2,306.0
1990	$3,422.6	$3,405.4
1991	$3,524.9	DNA

Findings

The results from this analysis are as important as they are unsurprising. In 1991:

- Households headed by persons with less than a high school education comprised 21.7 percent of all households, earned 11.5 percent of all income, and paid 8.0 percent of all federal income taxes.
- Households headed by persons with high school diplomas comprised 33.2 percent of all households, earned 28.5 percent of all income, and paid 25.9 percent of all federal income taxes.
- Households headed by persons with some college but less than a baccalaureate degree comprised 22.1 percent of all households, earned 23.4 percent of all income, and paid 22.8 percent of all federal income taxes.
- Households headed by persons with a bachelor's degree or more comprised 23.0 percent of all households, earned 36.6 percent of all income, and paid 43.2 percent of all federal income taxes.

These data indicate that only those with at least some college education are paying taxes at least in proportion to their representation in the population. Households headed by persons with a high school education or less pay a far smaller proportion of federal income taxes their representation in the population.

Between 1970 and 1991, the responsibility for paying federal income taxes has shifted sharply to the college educated.

- In 1970 households headed by persons with at least some college education paid 41.6 percent of all federal income taxes.
- By 1980 these households paid 52.1 percent of all federal income taxes.
- By 1990 these households paid 62.5 percent of all federal income taxes.
- By 1991, with the refined definition of educational attainment in place, households headed by persons with at least some college education paid 66.0 percent of all federal income taxes.

This shift in responsibility for paying federal income taxes could be caused by any of three factors: shift in distribution of households by educational attainment, shift in incomes of households by educational attainment, and/or changes in effective federal income tax rates by level of educational attainment. In fact it is the first two and not the latter that produced the shift in federal income tax burden between 1970 and 1991.

Over the last two decades a growing proportion of American households have become headed by persons with at least some postsecondary education, up from 25.4 percent in 1970 to 45.1 percent by 1991. Concurrently, a declining share of households are headed by persons with a high school education or less.

Similarly, household income has been redistributed across levels of educational attainment. The proportion of household income earned in households headed by persons with at least some college education has moved from 35.7 percent in 1970 to 60.0 percent by 1991.

What has changed very little over this period are effective federal income tax rates. Between 1970 and 1980 tax rates rose from 10.93 percent to 12.95 percent across all household income levels. Then between 1980 and 1990 these rates declined, to 11.88 percent by 1985 and 11.27 percent by 1990.

Across levels of household educational attainment a roughly similar pattern is evident. Among families headed by high school graduates, tax rates rose from 11.21 percent in 1970, to 12.60 percent in 1980, than dropped back to 10.36 percent by 1990. Among those with some college but less than a bachelor's degree, rates rose from 11.72 percent in 1970, to 13.23 percent by 1980, then dropped back to 11.07 percent by 1990.

Among households headed by persons with four years or more of college, the effective federal income tax rate increased from 13.39 percent in 1970, to 15.66 percent in 1980, and then dropped to 13.26 percent by 1990.

Distribution of Households, Income and Federal Income Taxes Paid by Educational Attainment of Head of Household 1970-1991

Educational Attainment of Head	1970	1975	1980	1985	1990	1991
Households						
Number (000)	64,374	72,867	82,368	88,458	89,429	90,810
Less Than 8 Years	14.0%	11.5%	9.4%	7.5%	11.3%	10.3%
8 Years	12.8	9.7	7.9	6.5		
1 to 3 Years High School	16.4	15.3	14.0	12.5	11.3	11.4
4 Years High School	31.3	33.1	34.6	35.4	35.8	33.2
1-3 Years College	11.8	14.0	15.6	17.3	18.4	22.1
4 Years College	13.6	9.2	10.2	11.8	12.8	14.5
5/+ Years College		7.2	8.2	9.1	10.4	8.5
Any College	25.4%	30.4%	34.0%	38.2%	41.6%	45.1%
4 Years or More	13.6	16.4	18.4	20.9	23.2	23.0
Total Income						
Amount (000,000,000)	$644	$1004	$1735	$2,571	$3,423	$3,525
Less Than 8 Years	8.1%	6.3%	4.9%	3.6%	$5.5%	4.8%
8 Years	9.3	6.6	5.1	3.9		
1 to 3 Years High School	14.4	12.0	10.2	8.4	6.9	6.7
4 Years High School	32.6	33.4	34.1	32.2	31.2	28.5
1-3 Years College	13.9	15.8	17.2	18.7	19.8	23.4
4 Years College	21.8	13.4	14.8	17.2	18.6	20.9
5/+ Years College		12.4	13.7	16.1	18.0	15.7
Any College	35.7%	41.6%	45.7%	52.0%	56.4%	60.0%
4 Years or More	21.8	25.8	28.5	33.3	36.6	36.6
Federal Income Taxes Paid						
Amount (000,000,000)	$70	$111	$225	$306	$386	$401
Less Than 8 Years	4.1%	4.1%	2.3%	2.3%	3.5%	3.0%
8 Years	6.9	5.2	3.9	2.8		
1 to 3 Years High School	13.9	10.2	8.6	6.5	5.3	5.0
4 Years High School	33.4	32.7	33.2	29.6	28.7	25.9
1-3 Years College	14.9	16.4	17.6	18.5	19.4	22.8
4 Years College	26.7	15.5	17.2	19.6	20.7	23.2
5/+ Years College		15.9	17.3	20.7	22.4	20.0
Any College	41.6%	47.8%	52.1%	58.8%	62.5%	66.0%
4 Years or More	26.7	31.4	34.5	40.3	43.1	43.2

Notes:
1. Definition of educational attainment changed in 1991 from years of school completed to highest degree earned.
2. Households limited to those headed by persons over 25 years beginning in 1990.

In 1990 all households paid approximately $386 billion in federal income taxes. The decline in the effective federal income tax rates between 1980 and 1990 reduced these revenues to the federal government by approximately $57.6 billion in 1990.

The primary beneficiaries of the reduction in the effective federal income tax rate between 1980 and 1990 were households with college -educated heads. Of the $57.6 billion reduction in federal income taxes in 1990 (compared to 1980 tax rates), $44.9 billion benefitted households with heads who had at least some college education. The balance of $12.7 billion benefitted households whose heads had a high school education or less.

Biting the Hand that Feeds It

For more than a decade, governments have been reducing tax resources for higher education at the same time that higher educated workers are contributing a growing share of those same tax resources.

As reported in the January and August issues of **OPPORTUNITY**, the share of federal government expenditures allocated to higher education--mainly Title IV federal student financial aid programs intended to broaden higher education opportunity--increased from 0.60 percent in 1970 to a peak of 0.95 percent by 1981, and has since shrunk to 0.70 percent in 1992.

As a proportion of all federal expenditures, higher education is small change in the federal budget. Public higher education was, is, and will continue to be for the foreseeable future primarily a state responsibility.

But the federal contribution is a very much larger share of the funding for student financial aid programs. According to The College Board's annual survey of *Trends in Student Aid*, in 1993 about 74 percent of all student aid funds were provided through federally supported programs, mainly Title IV programs. *So when the federal government shifts $4 billion in responsibility for financing higher education from federal taxpayers back on to students, the financing shift adds $4 billion to college attendance costs for students who are already financially needy.*

While we lack the data to perform these calculations on a state-by-state basis, it is fair to say that all states are also increasingly dependent on taxes paid by college educated workers. It may also be true that taxes based on other than income--such as sales and property taxes--are also increasingly derived from the earnings of college -educated workers. In fact every aspect of economic activity is increasingly driven by college educated workers.

Why, then, are all 50 states and the federal government reducing their higher education investments in the future workforce? Why are federal and state governments biting the hand that feeds them?

The fundamental investment principle that seeks to maximize private or social welfare from investments is to concentrate investment resources where rates of return are highest. We can illustrate this through a straightforward example.

Suppose an individual accumulates savings and/or benefits for retirement over a working lifetime. In managing those investments the individual seeks their highest value at the time of retirement. Many factors influence investment decisions such as risk, volatility, imperfect information, and other considerations. What the investment manager does know, however, is that past experience suggests certain kinds of investments--e.g., stocks--have outperformed other kinds of investments--e.g., bonds. At the end of the investment period, when the individual reaches retirement age, investments managed in the form of stocks are likely to be worth considerably more than are investments managed in the form of bonds.

For example, $10,000 put in a mattress would be worth $10,000 after 20 years. A $10,000 investment in bonds that returned 8 percent per year would be worth $49,000 after 20 years. A $10,000 investments in stocks that grow at an average annual rate of 12 percent would be worth $109,000 after 20 years. Alternatively, $10,000 invested in lottery tickets would be worth--on average--$0 long before 20 years had passed.

Social resource investments function under the same principle. Social resources allocated to higher education investments in young people are more likely to result in improved future social welfare than are social resources allocated to incarceration of prisoners or health care for the poor--the two chief competitors for state fiscal resources in recent years.

But simply increasing social resources for higher education is not a sufficient public policy response if improved social welfare is the end objective of such investments. Not all students are equally in need of public resources to help finance their higher educations. Many students will attend college regardless of the presence or size of financial incentives for doing so. Others will not attend college without substantial, adequate, and appropriate financial assistance. Forty years worth of econometric studies on student demand for higher education have consistently found positive effects on student demand for higher education when such resources are concentrated on those who need them most.

Raising Tuitions . . . *. . . to Build Prisons*

Infatuation with Incarceration

Since the mid-1970s Americans have demonstrated an extraordinary enthusiasm for putting other Americans behind bars--an enthusiasm unmatched almost any place else by any other population on the planet. This fervor is applied with special zeal to members of minority groups, especially males.

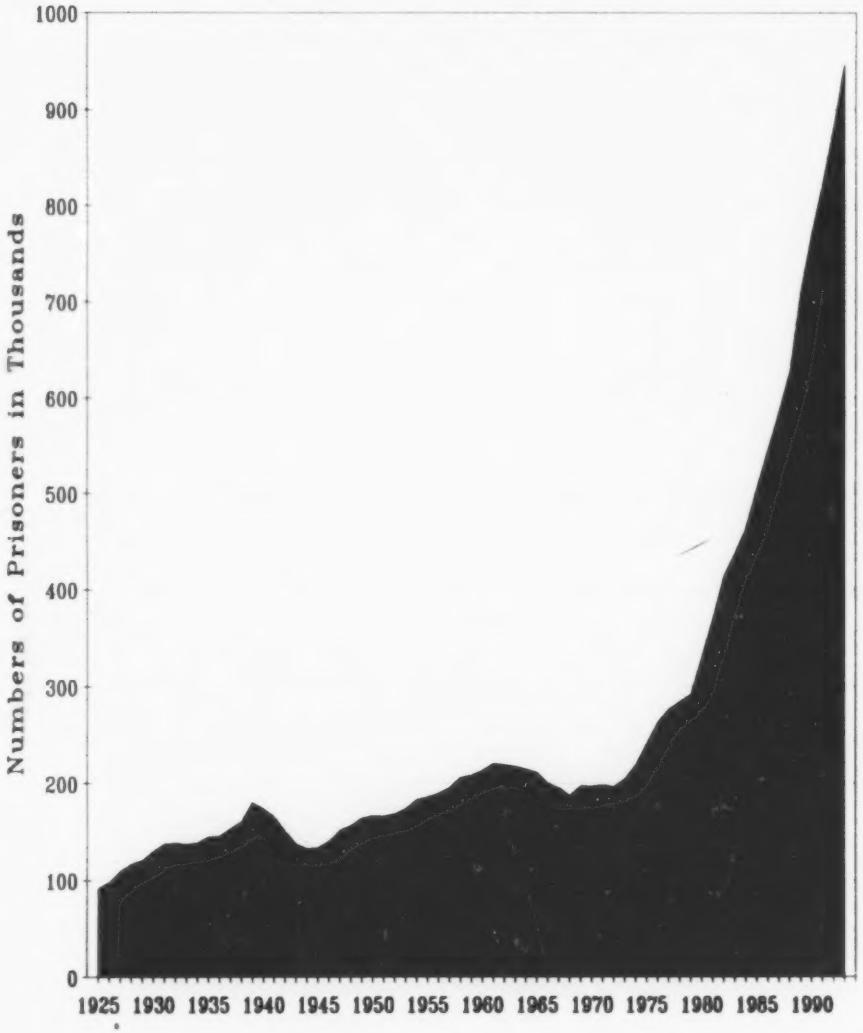
Our enthusiasm has led to an ever-growing share of state budgets allocated to the construction and operation of prisons. The increased share of state budgets for prisons means that some other state activity is receiving a smaller share of state budgets. We in higher education know who the loser is: in every one of the 50 states, the share of social resources allocated to higher education has shrunk while the share allocated to prisons has increased. And as state financial support for public higher education has shrunk, tuition charges to students have increased to offset the loss of state support.

This finding leads us to the conclusion that the higher tuition charges paid by students in public colleges and universities have been used by the states to finance the construction and operation of new prison capacity--not for higher educational purposes. There appears to be no end to this shift in sight: the federal crime bill, three-strikes-and-yer-out laws, chronic and worsening prison overcrowding, and a steady, long-term, and substantial deterioration in job prospects for the inadequately educated suggest that public college and university tuitions will continue to finance the expansion of capacity and operation of the prison system for the foreseeable future.

This finding leads us further to seek to know thine enemy. What is it about incarceration that so fascinates Americans? Why are Americans so reluctant to invest in the higher education of the future workforce at the same time that they are so enthusiastic about building prisons and filling them with fellow Americans? Why were state taxpayers willing to spend $19,403 per prisoner in state prisons in FY1991 but only $5,300 per student in public higher education?

The tentative answers are profoundly disturbing to anyone who cares more than a whit about the quantity and quality of life sustainable in America

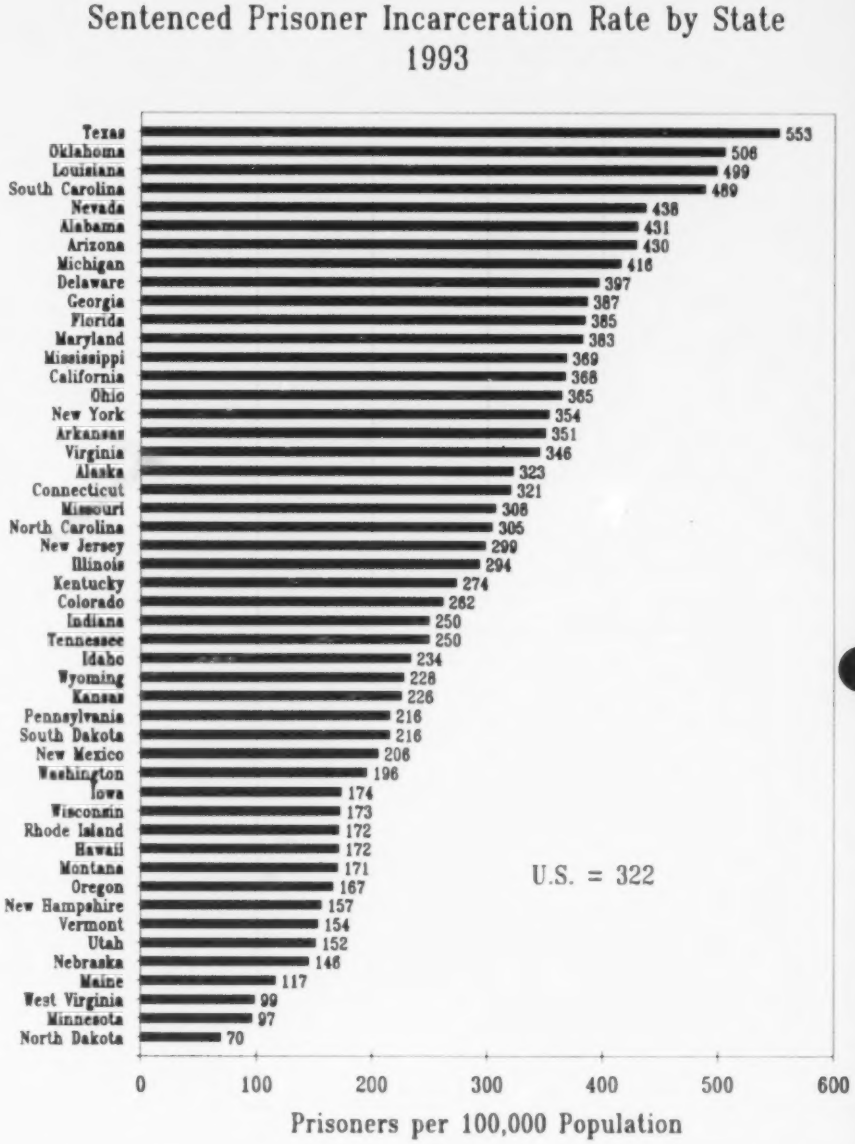
Prisoners in State and Federal Prisons
1925 to 1993



in the future. Everyone in education ought to care deeply about the course of social policy over the last twenty years. As numerous labor market analyses presented here in ***OPPORTUNITY*** *have pointed out, only those who get at least some postsecondary education and/or training are going to find jobs that support a decent living standard. Those left out of postsecondary education are prime candidates for social welfare programs: prisons for males and AFDC for females.*

While we are not all-inclusive in our analysis of Americans' infatuation with incarceration, we feel compelled to initiate the inquiry here and now. Even the rough-cut that follows should lead the thoughtful reader to be fearful of the consequences of the social policy trajectory we have been pursuing for the last twenty years.

The major sources of data reported here include 1) the Bureau of Justice Statistics in the Department of Justice, 2) The Sentencing Project, a non-profit Washington, DC, organization that conducts research on criminal justice issues, 3) the Census Bureau's reports on state government finances and educational attainment, and 4) the Department of Commerce' Bureau of Economic Analysis' National Income and Product Accounts of the United States.



Prison Populations

In 1993 there were 1,339,695 Americans behind bars in federal and state prisons and local jails. Of the total, 89,586 were in federal prisons, 859,295 were in state prisons and 393,618 were in local jails.

Federal and state prisoners with sentences of more than one year--"sentenced prisoners"--were 96 percent of the total prison population. The balance were prisoners with less than a year's sentence, or were awaiting trial in states with combined prison-jail systems.

The number of prisoners in federal and state prisons increased by 65,000 between 1992 and 1993--an average daily increase of 179 prisoners per day, every day of the year. Between 1992 and 1993 56,000 prisoners were added in state prisons, and 9,000 were added in federal prisons. In 1980 there were 329,821 prisoners in federal and state prisons. Since 1980 the average daily increase in the number of prisoners in federal and state prisons has been 130 per day, for every day of the last 13 years.

The number of black males in federal and state prisons and local jails--596,525--was greater than the number enrolled in higher education--527,000.

Prison Capacity

The growth in federal and state prison

populations has run well ahead of capacity, regardless of how capacity is measured. In 1993 federal prisons were operating at 136 percent of their rated capacity. Although federal prison capacity was rated for about 65,900 prisoners, actually 89,600 were incarcerated.

A similar capacity issue exists in state prisons. The capacity of state prisons--measured in different ways--ranged from a low of 666,100 to a maximum of 728,200. However, 859,300 were actually incarcerated. In 1993 state prisons held between 118 and 129 percent of their reported capacity. Between 1988 and 1993 state prison populations have outgrown capacity at an accelerating rate.

All but a few states are operating their prisons above their reported capacities. This has obvious implications for future higher education funding. The states with above average prison populations relative to their reported capacities were **California** (190%), **Hawaii** (189%), **Ohio** (180%), **Montana** (171%), **Oklahoma** (168%), **New Hampshire** (153%), **Illinois** and **Maryland** (152%), **Iowa** (150%), **Massachusetts** and **South Carolina** (146%), **Michigan** (143%), **Colorado** (139%), **Pennsylvania** (138%), **New Jersey** and **Idaho** (135%), **Washington** (134%), **Delaware** (133%), and **Wisconsin** and **Florida** (129%).

Incarceration Rates

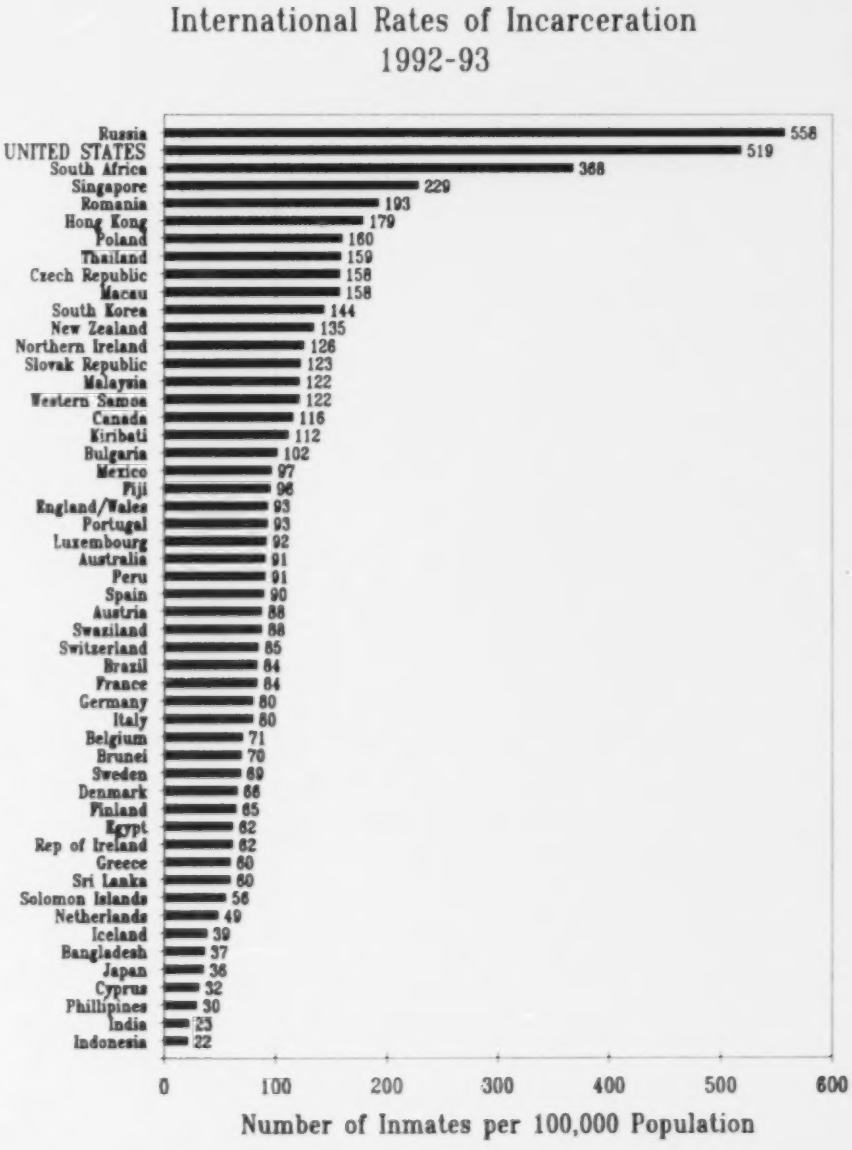
By state, incarceration rates (prisoners per 100,000 population) in state prisons ranged from 70 in **North Dakota** to 553 in **Texas** in 1993. Generally, incarceration rates were highest in the south and lowest in the northeast. The rate of growth was highest in the south and lowest in the midwest.

The **District of Columbia** had an incarceration rate of 1,549. However, the District is an urbanized area, and its incarceration rate cannot be compared with those of states with urban, suburban and rural populations.

Prison incarceration rates varied sharply by gender and race.

- The rate for males (679 per 100,000 population) was 18 times greater than the rate for females (38 per 100,000), although the number of female prisoners grew faster (9.6%) than for males (7.2%) between 1992 and 1993.
- Among males, the white incarceration rate was 372 per 100,000, compared to 2,678 per 100,000 for blacks. Among females, the rate was 20 per 100,000 for whites and 143 for blacks.

In 1991 the state prison incarceration rate for both white and black men peaked in the 25 to 29 age group. Among white men, the incarceration rate was 264 at ages 18-19, rose to 738 at ages 20 to 24, peaked at 932



between 25 and 29, dropped to 763 at 30 to 34, dropped further to 548 between 35 and 39, and was 191 for white males 40 and over. Among black men, the incarceration rate was 2246 prisoners per 100,000 population at age 18 to 19, rose to 4775 between ages 20 and 24, peaked at 6301 between 25 and 29, then dropped slightly to 5577 between 30 and 34, dropped further to 4021 between 35 and 39, and was 1191 for black males 40 and over.

International Incarceration Rate Comparisons

We gain insight into Americans' apparently insatiable appetite for putting fellow Americans behind bars by comparing incarceration rates from the U.S. with incarceration rates for other countries for the 1992-1993 period. Here, Americans in federal and state prisons are combined with local jail populations to facilitate international comparisons--other countries do not distinguish between prisons and jails the way most states do. (A few states operate combined prison-jail systems.)

In 1992-93, the U.S. had the second highest incarceration rate among 52 countries for which data were available. The U.S. incarceration rate--519 prisoners per 100,000 population--was second only to **Russia** at 558. The median incarceration rate for the 52 countries was 91 prisoners per 100,000 population--less than one-fifth of the U.S. rate.

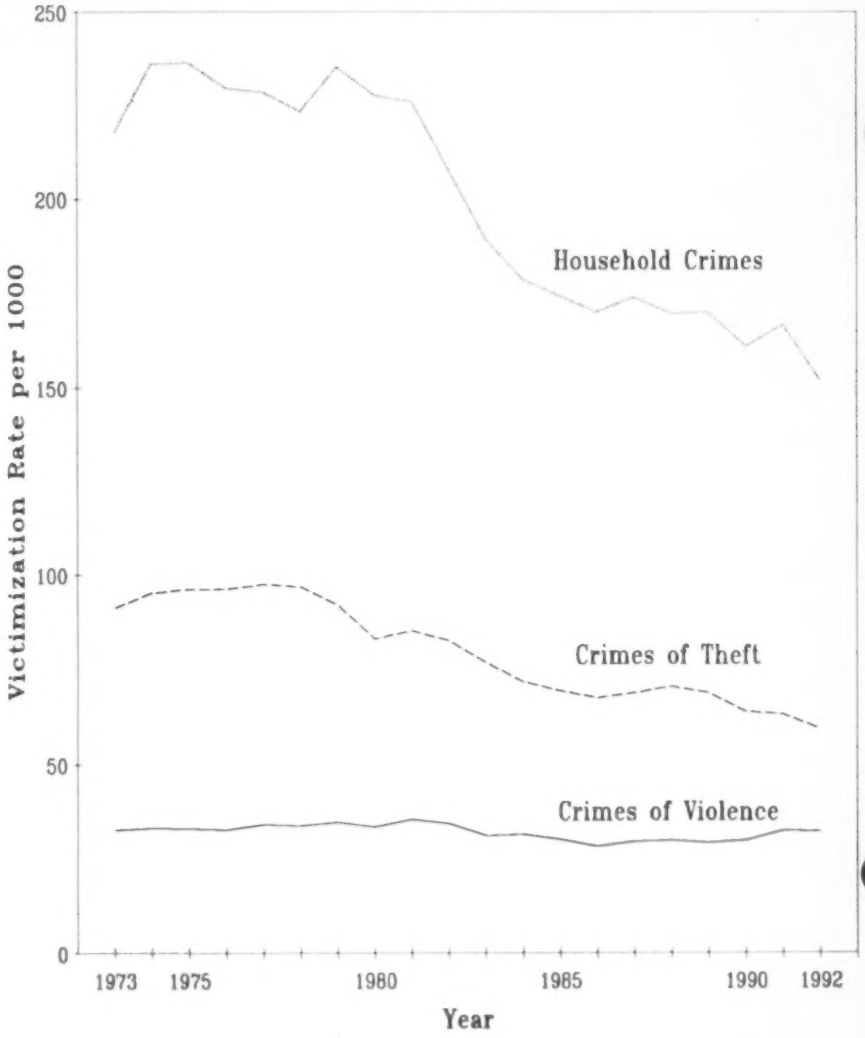
Compared to the 1989-91 period for those countries that existed in both periods and for which data were available, the United States led the world in increased incarceration rates of its population. Over this brief period, the incarceration rate increased by 64 prisoners per 100,000 population in the **United States**, by 61 in **Hong Kong**, 54 in **Poland**, 35 in **New Zealand**, 25 in **Sweden**, 20 in **Italy** and 18 in the **Republic of Ireland**. Incarceration rates decreased slightly in **India, Japan,** and **Denmark** during this period.

Including those in local jails with federal and state prisoners, the U.S. incarceration rate for black males was 3822 prisoners per 100,000 population. By comparison in **South Africa**, with its long history of black persecution, the comparable rate was 851 black prisoners per 100,000 population. The U. S. rate was four-and-a-half times greater than the incarceration rate for black males in South Africa in 1992-93.

Victimization Rates

Since 1980, while American incarceration rates have soared, victimization rates have been dropping. In 1973 crime victimization rates were 341 per 1000 persons or households, and by 1980 they were 344 per 1000. Then during the 1980s they began to drop, to 274 by 1985, to

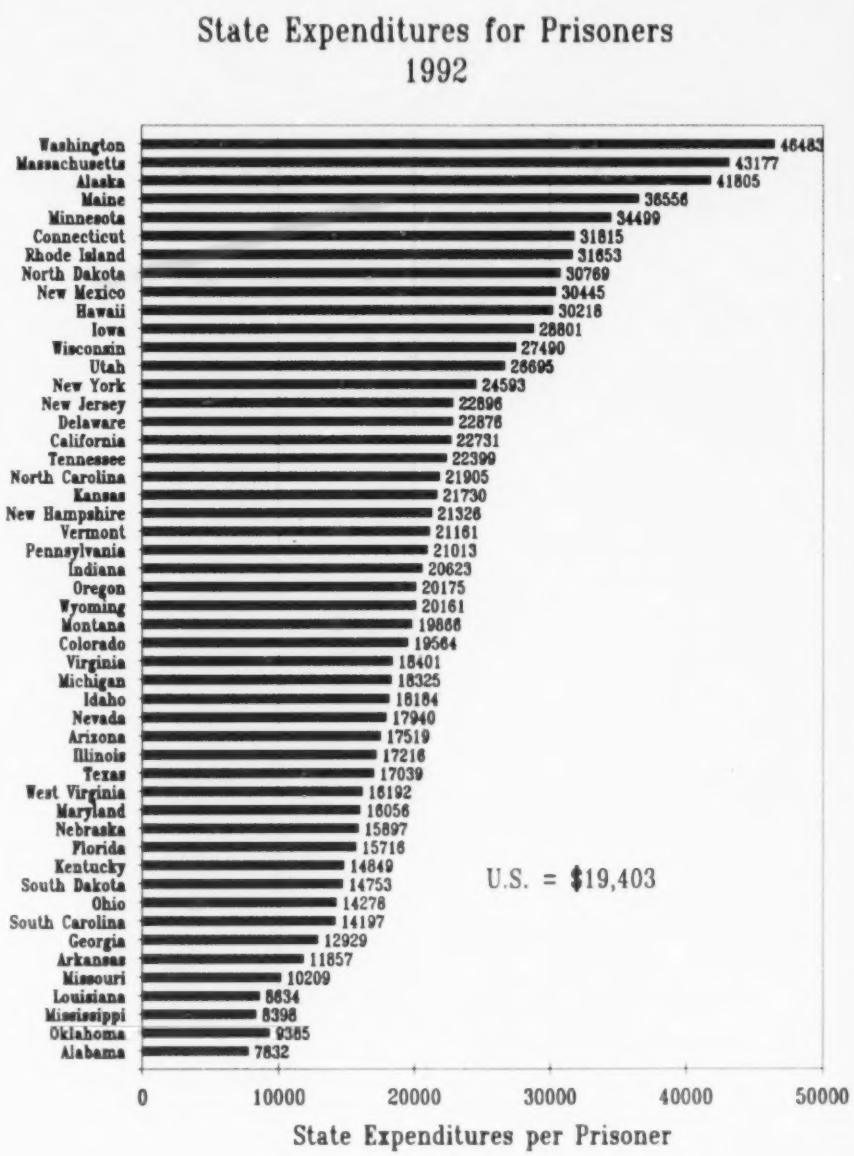
Victimization Rates for Personal and Household Crimes
1973 to 1992



254 by 1990, and finally to an all-time low of 243 by 1992.

Victimization rates are calculated as the number of incidents of violence or personal theft per 1000 persons age 12 or older or per 1000 households. Crimes are of three types: crimes of violence (rape, robbery, assault), crimes of theft (personal larceny), and household crimes (burglary, larceny, motor vehicle theft). Between 1973 and 1992, victimization rates for crimes of theft against individuals and household crimes decreased--substantially. Violent crime rates have fluctuated over the last twenty years, and by 1992 they were just below where they had been in 1973.

New court commitments of prisoners by their most serious offense to state prisons between 1980 and 1992 generally reflect the data on victimization. Between 1980 and 1992 the proportion of new court commitments to state prisons for violent offenses declined from 48 percent to 29 percent of the total. Similarly, the proportion of new commitments for property offenses declined from 41 to 31 percent of the total. The increases came from drug and public-order offenses: between 1980 and 1992 the proportion of new court commitments to state prisons for drug offenses increased from 7 to 31 percent, and new commitments for public-order offenses increased from 4 to 9 percent of the total.



Budgeting for Corrections

Prisoners get free food, free housing, free medical care and free required supervision while behind bars. This care is free to prisoners, but expensive to taxpayers. In FY1992, states spent $20.1 billion on corrections, according to governmental finances data published by the Census Bureau. Of this total, $15.4 billion was spent directly on correctional institutions. Given the state prison population of 803,397 in 1992, that works out to $19,403 for each prisoner.

State expenditures per prisoner varied by a factor of six at the extremes across the 50 states in 1992. At one extreme, **Washington** spent $46,483 per prisoner in state prisons, while at the other **Alabama** got by on just $7832 per prisoner. Generally northern states spent the most per prisoner, while the southern states spent the least.

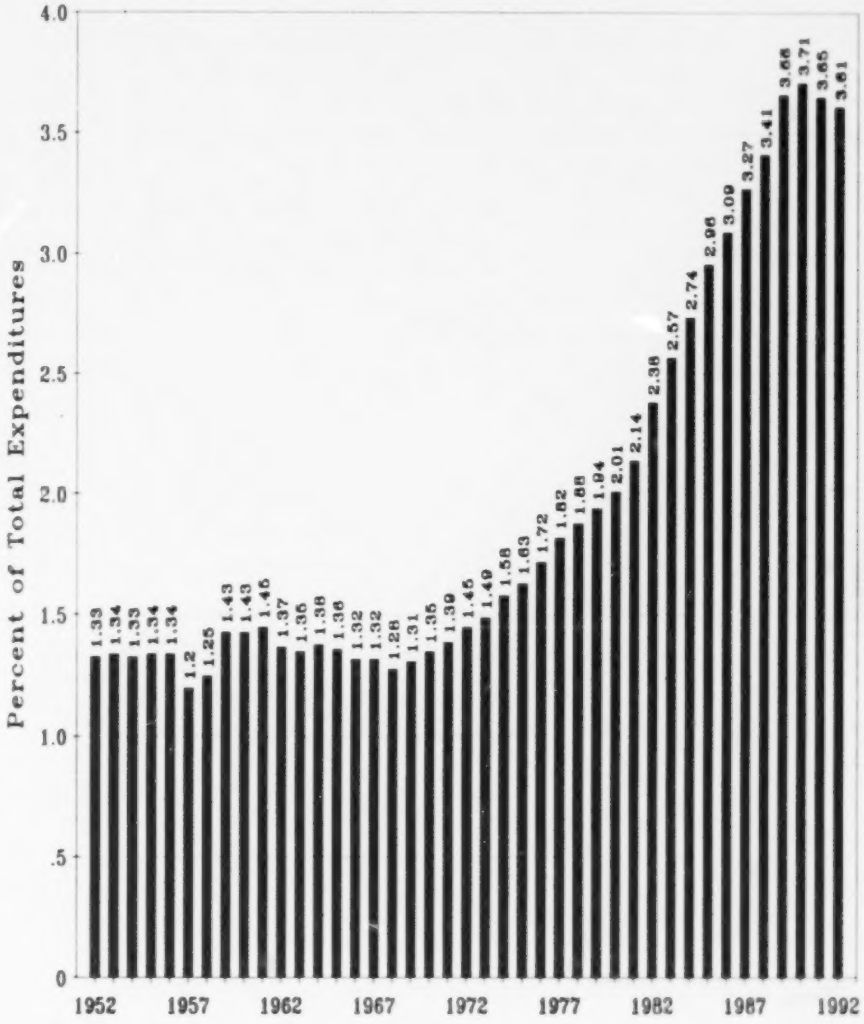
(The $20.1 billion spent by states on corrections in FY1992 does not include the $5.5 billion also spent by states on police protection, the $7.5 billion also spent by states on the judicial and legal system, welfare support for families of incarcerated breadwinners, nor their foregone income and tax payments therefrom while behind bars. Nor does this expenditure include money spent by civilians in the private economy for personal security.)

Using data from the National Income and Product Accounts (NIPA), we can describe the proportion of government expenditures going into corrections. At the federal level, corrections expenditures were $2.162 billion or 0.15 percent of the federal total in 1992. This is up sharply from 0.06 percent as recently as 1985, but is still small change compared to the financial strain of corrections borne by state government.

In 1992 state and local governments spent $30.01 billion on corrections, or 3.61 percent of all state and local government expenditures. As shown in the chart, the share of state and local government expenditures began to increase about the mid-1970s--or about the same time that the number of Americans in federal and state prisons began to increase. In 1972 corrections consumed 1.45 percent of all state and local spending. By 1982 it had risen to 2.38 percent, and by 1992 it was 3.61 percent. If in 1992 corrections had consumed its 1972 share of state and local government expenditures, these governments would have spent just $12 billion--not $30 billion--on corrections. The increasing share of state and local government budgets allocated to corrections meant that $18 billion was diverted in 1992 from other state and local government services and programs to put a growing share of Americans behind bars.

The NIPA accounts suggest that in 1991 and 1992 states and local governments began serious efforts to reduce costs of incarceration. Although the population of state prisons and local jails increased by 108,000 during this period, the proportion of state and local government expenditures decreased from 3.71 to 3.61 percent. Increased state prison overcrowding and backing up prison populations into local jails are ways states appear to be trying to control prison expenditures.

State and Local Government Expenditures for Corrections 1952 to 1992



Corrections and Education

While the linkages between corrections and education may not appear obvious on first consideration, there are some important ties between the two.

Both corrections and higher education provide their services to young adults. The median age of college students in 1991 was 23.5 years, compared to 30 years for prisoners.

While college education characterizes college students, lack of college education characterizes prisoners. While 100 percent of college students have at least some college education, just 12 percent of state prisoners have any college education. In 1991 65 percent of all state prisoners had not graduated from high school. The incarceration rates in state prisons in 1993 were 1033 prisoners per 100,000 population age 18 and over for those with an eighth grade education or less, 1829 per 100,000 for those with 1 to 3 years of high school, 290 per

100,000 for high school graduates, and 122 per 100,000 for those with at least some college. Incarceration rates for high school drop-outs were 15 times greater than for those that had at least some college education.

About half of the increased costs of incarceration are being financed by states shifting resources out of higher education and into prisons, with increased charges to students making up for all of the loss in state appropriations to public colleges and universities. Between 1980 and 1992 the increased share of state taxes allocated to corrections meant that $9.5 billion had been shifted from other state activities into corrections. During this same period of time, the reduction in public higher education's share of state taxes was about $4.6 billion. The share of operating costs of public institutions of higher education provided through student charges increased by $6.3 billion during this same period.

This means that of the $6.3 billion in increased student charges in public institutions by 1992, $4.6 billion went to replace tax resources diverted from higher education to corrections, and $1.7 billion was added to resources for state colleges and universities.

Social Policy Issues

Americans' infatuation with putting fellow Americans behind bars is unmatched almost anywhere else in the world, or at any time in our own history. That infatuation is growing, setting new records year after year in federal and state prisons and local jails. The incarceration rate in America was 5.7 times higher than the median incarceration rate for 52 countries of the world, and the incarceration rate in the United States is growing faster than in any other country in recent years.

The American infatuation with incarceration is not spread equally across all populations. The incarceration rate for males is 18 times greater than it is for females. Among males the incarceration rate for blacks is 7 times greater than it is for whites. Among black males ages 25 to 29 years, the incarceration rate was nearly 20 times the average for the entire population.

These data on growing incarceration rates stand in perfect contrast to the twenty-year decline in the rates of household crime and crimes of theft, and the flat rate of violent crime from the victimization surveys. The new court commitments data indicate that a declining share of prisoners is being sentenced for property and violent crime since 1980, while a growing share is being sentenced for drug and public-order offenses.

Reaching conclusions about the high rate of incarceration in the United States is far beyond the scope of this introduction to the subject. Rather, for greater insight into the problems of crime and incarceration in America we turn to Marc Mauer's conclusions from his recently published analysis.

Mauer, M. *Americans Behind Bars: The International Use of Incarceration, 1992-93.* The Sentencing Project, Washington, D.C., September 1994.

Mauer writes:

What can we conclude from this assessment of crime rates and incarceration? Several key themes emerge:

1. *Crime rates for most property crimes and some assaultive offenses in the U.S. are not significantly greater than for other industrialized nations, and therefore are not a major explanation of the high rate of incarceration in the U.S.*
2. *Higher rates of violent crime in the U.S. are responsible for at least a part of the nation's high incarceration rate compared to other nations. The dramatic increase in the prison population since 1980, though, was not primarily a result of sentencing greater numbers of violent offenders, since violent offenders represented only 16 percent of the increase in court commitments from 1980 to 1992.*
3. *The impact of the 'war on drugs' has been responsible for much of the increase in the prison population, with 46 percent of the new court commitments since 1980 being due to drug offenses.*
4. *Cross-national comparisons of rates of incarceration suggest that the length of prison sentences, rather than the number of persons sentenced to prison is the main determinant of differing rates of incarceration. Thus, alternatives to incarceration may have some impact on lowering a jurisdiction's incarceration rate, but this will generally be of less magnitude than altering sentence lengths.*
5. *Once prisons are built, they are in many respects a self-perpetuating entity. Prisons are constructed to last for 50-100 years and their continued use over time contributes to a culture that makes their use seem logical and rational. While few persons would argue with the necessity for a certain level of imprisonment in society, it is far from clear that incarceration is the only, or best, means of either preventing or controlling crime. A broad range of policies both within and outside the criminal justice system exist to accomplish these objectives, and different nations make use of these resources to varying degrees. Unless incarceration is examined in this context, policymakers will be confronted with a set of crime control options that is much more restrictive than necessary.*

Where More . . . *. . . Is Much Better*

Earnings by Educational Attainment 1992

About the only thing more expensive than going to college is not going to college, according to data recently published by the Census Bureau. These data are similar to data frequently published here in ***OPPORTUNITY*** *from many Current Population Survey and decennial census reports. The finding is always the same: more education leads to higher income. And if anything is true, the income gap between the college educated and those without college education continues to widen, just as it has since the early 1970's.*

Here we present data collected by the Census Bureau in the Current Population Survey.

Kominski, R., and Adams, A. *Educational Attainment in the United States: March 1993 and 1992.* U.S. Bureau of the Census, Current Population Reports, P20-476, US Government Printing Office, Washington, DC, 1994.

Worklife Earnings

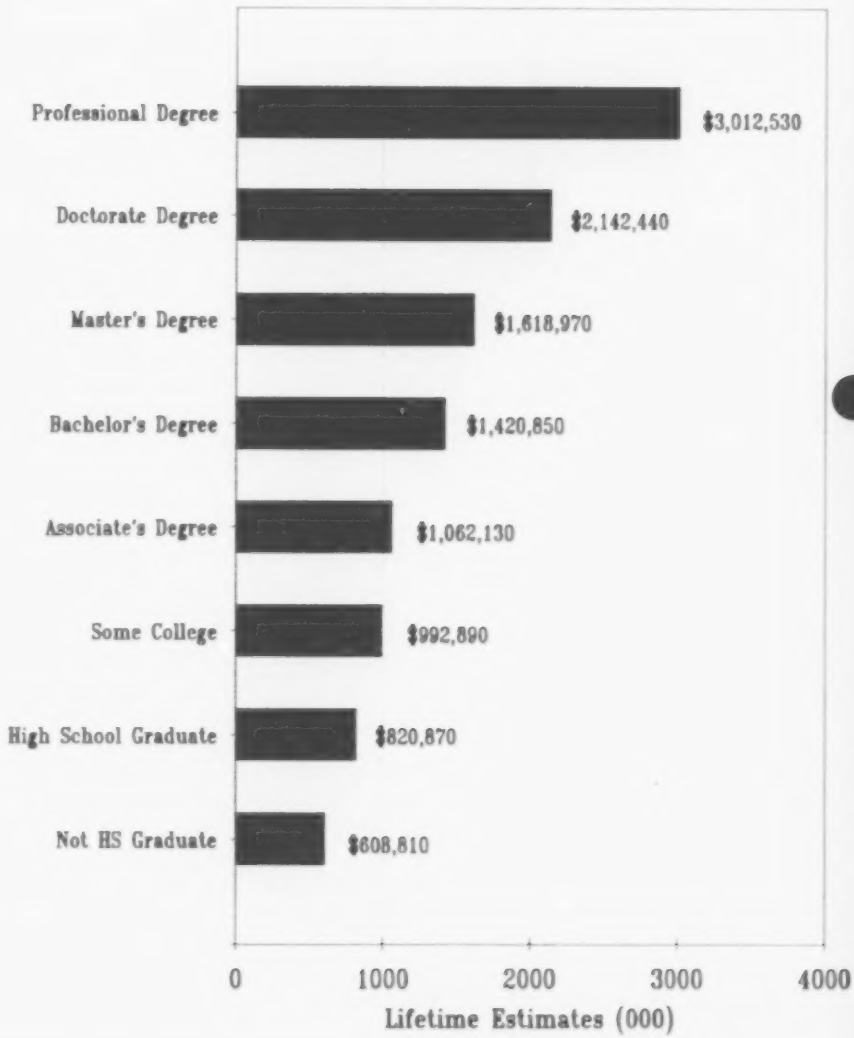
The Current Population Survey collects information on earnings, educational attainment, age and many other factors from a sample of Americans in March of each year.

These data have been summarized to describe earnings for all people ages 25 through 64--a 40 year working lifetime, although many people may start or stop working at ages different than these.

Over this 40 year worklife, the data for 1992 indicate that a high school graduate can expect to earn about $820,000. Persons with some college education but no degree can expect to earn about $170,000 more.

A person with an associate's degree could expect to earn about $1,060,000, or about $240,000 more than a high school graduate over their worklife. A person with a baccalaureate degree could expect to earn an average of $1,420,000, or about $600,000 more than a high school graduate.

Worklife Earnings by Educational Attainment
1992



Beyond the bachelor's degree, worklife earnings continue to increase to $1.7 million for those with a master's degree, $2.1 million for a doctorate, and $3 million for a professional degree.

Earnings by Age

Some young people who drop out of high school so that they can earn a little money. In fact they do--very little. Their annual earnings start low and stay low throughout their adult lives. In 1992 mean annual earnings for a high school drop-out were $12,500 by age 25 to 34, rose to $14,300 by 35 to 44, rose a little more to $17,303 between 45 and 54 years, then dropped to $16,720 between 55 and 64 years.

High school graduates do a little better, averaging about $5300 per year more than high school drop-outs. Those with some college earn an average of $4300 per year more than high school graduates. Those with associate's degrees earn about $1700 per year more than those with some college but no degree.

Then the big jumps in annual earnings kick in. The bachelor's degree holder earns an average of $9000 per year more than the associate's degree holder. Finally, the professional degree holder earns a whopping $39,800 per year more than the baccalaureate degree recipient.

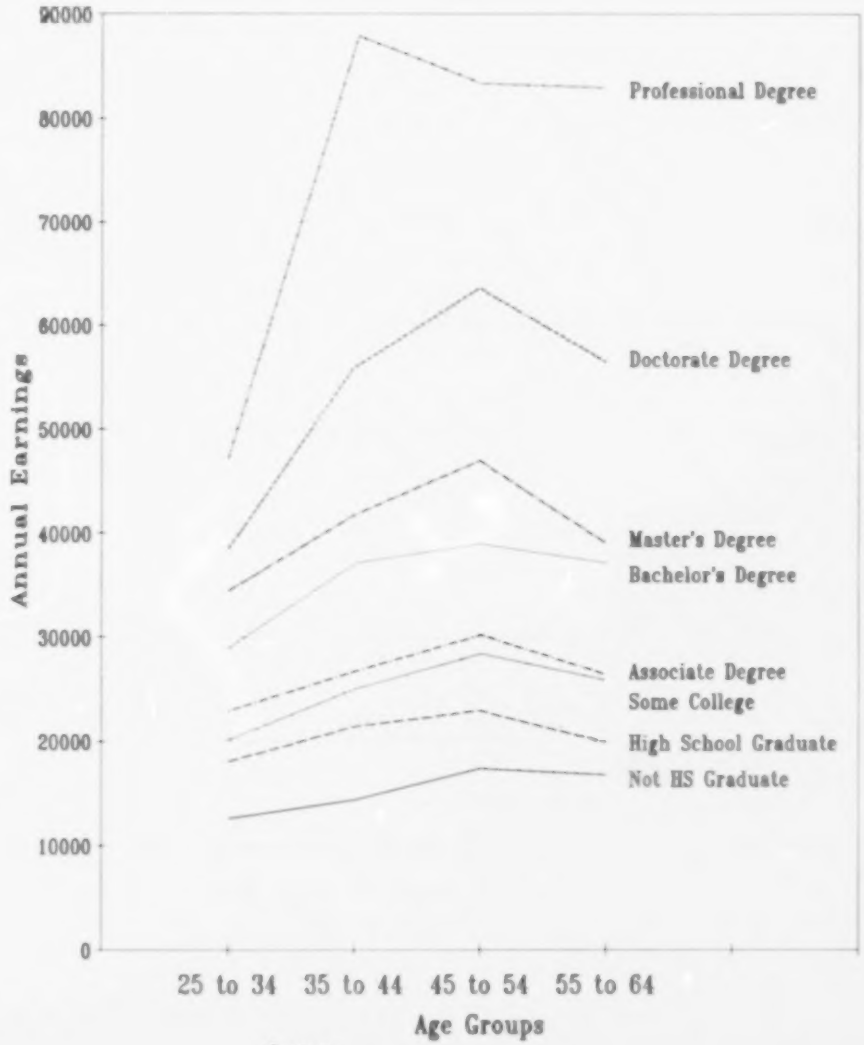
The labor market entrant begins with an earnings level significantly determined by his or her educational attainment at the time. Significantly, the initial difference versus other levels of educational attainment persist throughout one's working lifetime. Given the worker's level of educational attainment, chances of catching up with incomes of better educated workers are poor. So also is the worker's income likely to fall to levels of those with lesser levels of educational attainment assuming continued employment. *On average*, educational attainment determines not only one's initial earnings but also the earnings path one will follow throughout their adult working years.

Earnings by Gender and Race/Ethnicity

Average annual earnings for those with bachelor's degrees were higher in 1992 for males ($40,039) than for females ($23,991), and for whites ($33,092) than for blacks ($27,457) or for Hispanics ($28,260).

However, regardless of gender or race/ethnicity, the baccalaureate degree added substantially to average annual earnings in 1992. For males the annual earnings gain was $17,061 for those holding bachelor's degrees compared to high school graduates. For females the gain was $9863. For whites the average earnings gain was $13,827, compared to $12,197 for blacks and $11,546 for Hispanics.

Earnings by Age and Educational Attainment
1992



Occupation

Some occupations--particularly those that offer the highest wages--are more likely to require higher educated workers than are other occupations. Of some 96 million employed persons between the ages of 25 and 64 years in March of 1993, their educational attainment by occupations is summarized in the following table.

Proportion of Employed Persons with Bachelor's Degree or More, March 1993

Professional specialty occupations	75.2%
Executive, administrative and managerial	47.8%
Technicians and related support occupations	30.9%
Sales occupations	29.2%
Administrative support, including clerical	14.7%
Farming, forestry and fishing	9.5%
Other service occupations	7.8%
Private household occupations	7.2%
Precision production, craft and repair	6.3%
Transportation and material moving	4.4%
Machine operators, assemblers and inspectors	4.3%
Handlers, equip. cleaners, helpers and laborers	4.2%

Finally, changes in the labor market for workers with different levels of educational attainment that began in the early 1970s continue through the 1993 Current Population Survey. For the population and each group thereof--gender, race/ethnicity--the earnings gap between those with college educations and those with less than college educations continues to widen. For example, among males 18 years old and over those with bachelor's degrees earned 50 percent more than high school graduates in 1975, 56 percent more by 1980, 69 percent more by 1985, 74 percent more by 1990, and 74 percent more by 1992. Among females 18 years and over, those with bachelor's degrees earned 45 percent more than those with high school degrees in 1975, 43 percent more by 1980, 59 percent more by 1985, 69 percent more by 1990, and 70 percent more by 1992.

Among black males and females, the earnings advantage both exists and is also widening. Among black males 18 years and over, a bachelor's degree holder earned 44 percent more than a high school graduate in 1975, 35 percent more by 1980, 74 percent more by 1985, 73 percent more by 1990, and 83 percent more by 1992. Among black females in 1975 the bachelor's degree holder earned 70 percent more than the high school graduate in 1970, 65 percent more in 1980, 79 percent more in 1985, 90 percent more by 1990, and 81 percent more by 1992.

The same story holds for Hispanics. Hispanic males with bachelor's degrees earned 51 percent more than high school graduates in 1975, 47 percent more by 1980, 58 percent more in 1985, 74 percent more in 1990, and 73 percent more in 1992. Among Hispanic females the bachelor's degree holder earned 32 percent more than the high school graduate in 1975, 53 percent more by 1980, 58 percent more by 1985, 60 percent more by 1990, and 65 percent more by 1992.

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Postsecondary Education
OPPORTUNITY

The Mortenson Research Letter on Public Policy Analysis of Opportunity for Postsecondary Education

Number 29 **Iowa City, Iowa** **November 1994**

Chance for College by Age 19 by State in 1992

To reach college by age 19, a person must pass two hurdles. First, he or she must graduate from high school. Then, he or she must go on to college after high school. The mathematical product of these two rates is the probability that a person will be enrolled in college.

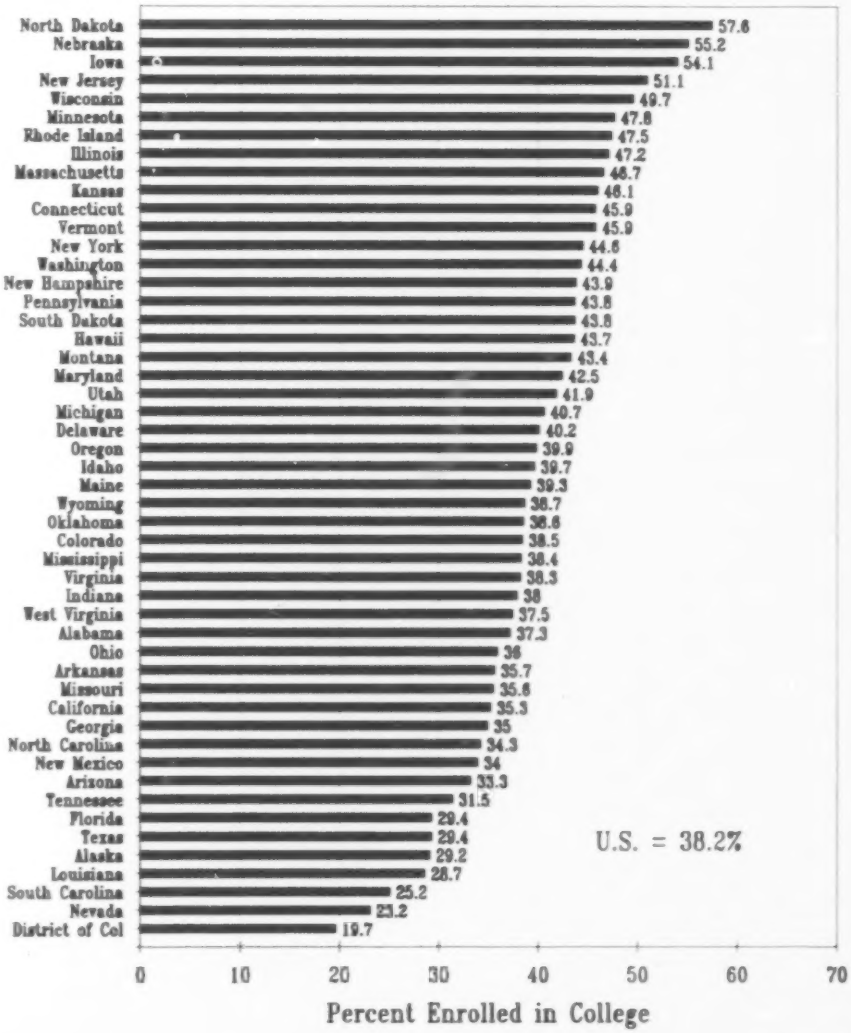
In this issue of ***OPPORTUNITY****, we explore data on a state-by-state basis to see where states differ in their rate of public high school graduation, of college continuation immediately after high school and the product of these two in chances for being enrolled in college by age 19.*

The major responsibility for funding higher education still resides at the state level of government. Here decisions of capacity, quality, price and net-price are made, and supported with annual appropriations more than five times greater than those of the federal government. As the FY1996 budget process begins in the states, we offer some insight into how they rank in providing higher educational opportunity to their young citizens.

The results of state efforts vary substantially across the 50 states. In 1992 a 19 year old's chances of being enrolled in college by age 19 ranged from less than 20 percent for residents of the ***District of Columbia*** *to 57.6 percent for residents of* ***North Dakota****.*

For the unfortunate residents of our nation's capital, the product of a low high school graduation rate and a very low college continuation rate produces the lowest chance for being enrolled in college by age 19--less than one in five 19 year old residents of the ***District of Columbia*** *is enrolled in college.*

Chance for College by Age 19
by State, 1992



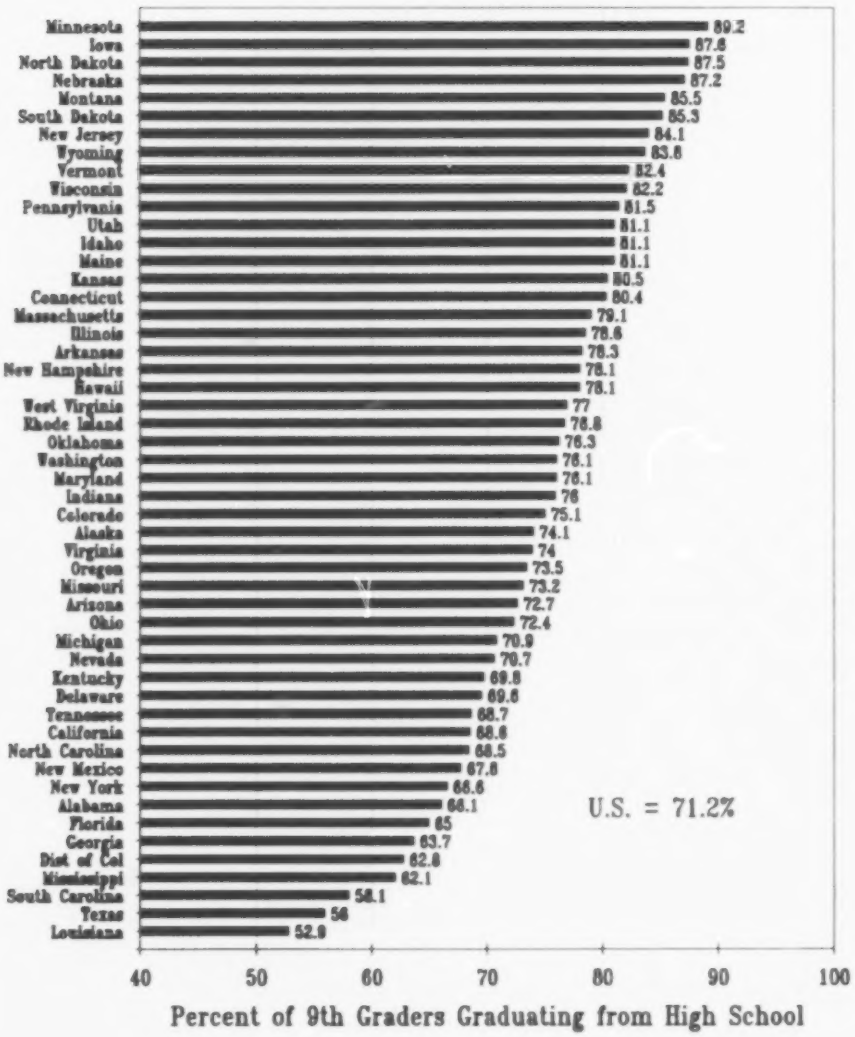
At the other extreme, ***North Dakota****'s third-ranked high school graduation rate combined with its second-ranked*

college continuation rate produce the best chances in any state of being enrolled in college by age 19.

In this analysis, we have examined data on public high school enrollments and graduates, estimated private high school graduates, and college freshmen who graduated from high school during the previous twelve months for 1992 on a state-by-state basis and combined these data to produce a proportion of each state's 19 year old population that was enrolled in college anywhere in the U.S. by the fall following high school graduation.

This report updates a similar analysis reported in the January 1993 issue of **OPPORTUNITY** for the years 1988 and 1986. The 1990 study could not be performed because data on residence and migration of college freshmen were collected but not released by the National Center for Education Statistics (NCES). Several states were unable to complete 1990 enrollment reports as a part of the NCES Integrated Postsecondary

Public High School Graduation Rates By State, 1992



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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement

This research letter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this research letter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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Education Data Survey, and thus all residence and migration enrollment data were suppressed.

The data used for this analysis are clearly imperfect for at least one state (Kentucky), as was the case with 1988 and 1986 data for another state (Maine). Where reported data appear to be in error, we have dropped the state from this report. This data problem arises mainly in uneven institutional reporting of the state of residence of its freshmen who graduated from high school during the previous twelve months.

High School Graduation

The first step .toward college enrollment is high school graduation. Here, we calculate each state's high school graduation rate by dividing the number of public high school graduates in 1992 by the number of ninth grade students enrolled three years earlier. For example, of the 3,106,280 ninth graders enrolled in public schools in 1988-89, 2,211,891 or 71.2 percent were regular high school graduates in 1991-92.

On a state-by-state basis, these data are only available for public school enrollments and graduates. Overall, public high school graduates were 90 percent of all high school graduates in 1992. But this was not true in all states. In some states, especially **Connecticut, Hawaii, Louisiana, Rhode Island**, and some mid-Atlantic states, private high schools produce about 20 percent of each state's annual crop of graduates. In these cases, the public high school graduation rates used are likely to underestimate such state's true graduation rate for the entire population. On the other hand, for states with relatively small private high school populations the public high school graduation rate most clearly reflects the total rate for the state.

In 1992 public high school graduation rates ranged from 89.2 percent in **Minnesota** to 52.9 percent in **Louisiana**. Generally public high school graduation rates were highest in the upper Midwest and lowest in the South.

Other analyses indicate that Minnesota's premier ranking for high school graduation has stood for more than 70 years, and is reflected in other measures of the performance of the K-12 education system including standardized test scores.

OPPORTUNITY has examined public high school graduation rates as a part of this and the prior analyses for 1986 and 1988. The trend in public high school graduation rates is decidedly *downward* over this period. In 1986 the public high school graduation rate was 73.3 percent. By 1988 it was 72.7 percent. For this analysis, in 1992 the rate had dropped to 71.2 percent. This is partially consistent

College Continuation Rate by State, 1992

with other data reported by NCES that show a decline in the U.S. high school graduation from the peak reached in the late 1960s.

College Continuation

The percent of each state's high school graduates continuing their educations in college the following fall is the college continuation rate for that state.

High school graduation is the first of life's great transitions. Many students leave their states of residence at the time of high school graduation to attend college.

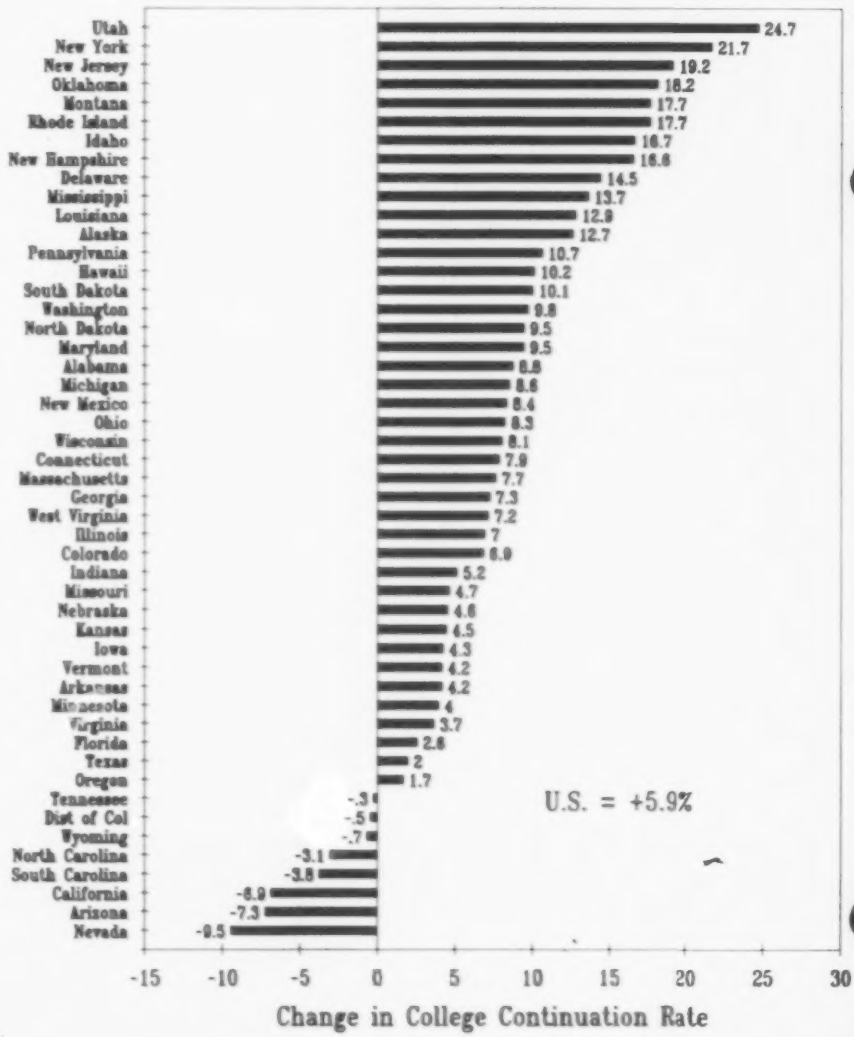
To control for this interstate migration, we have used the 1992 residence and migration data for college freshmen who graduated from high school in the previous twelve months. These data were recently published by the National Center for Education Statistics in the *1994 Digest of Education Statistics*. Thus, each state's high school graduates are tracked into colleges and universities within the state of high school graduation, and to colleges and universities in other states as well.

This more complete count of college freshmen requires a count of both public *and private* high school graduates for each state. However, NCES has not collected and reported private high school graduates *by state* since 1979-80. We have combined the *distribution* of private high school graduates by state for 1979-80 with the *estimated total number* of private high school graduates for 1991-92 to get the counted public and estimated private total high school graduates for each state for 1992 for the denominator of our college continuation rate for each state. (Subscribers interested in a copy of the spreadsheets detailing these data by state for 1986, 1988 and 1992 can get them free by calling, faxing or writing OPPORTUNITY.)

To the extent each institution and state has fully reported the state of residence of those freshmen entering its colleges who had graduated from high school during the previous twelve months, our calculation of a college continuation rate appears to be reasonable. The two most likely limitations of this calculation are our estimates of private high school graduates in 1992, and variations in institutional reporting of the state of residence of freshmen entering college directly out of high school. We do not know how to judge the accuracy of the former.

The accuracy of the latter data, however, can be guessed at and obviously erroneous data identified. In 1986 and 1988, after publishing these state rankings, we found that the University of Maine had not reported the requisite data, and this badly skewed the data we used for Maine in those years. Maine has corrected this

Change in College Continuation Rate by State Between 1988 and 1992



reporting problem, but this year **Kentucky** clearly has a reporting problem and we have thus dropped them from the remainder of this analysis.

In 1992 the college continuation rate for 1992 high school graduates was 53.6 percent, compared to 47.7 percent in 1988 and 43.0 percent in 1986. About 1.323 million fall 1992 college freshmen were produced by 2.471 million public and private high school graduates from the 1991-92 school year.

The college continuation rate ranged from 31.3 percent in the **District of Columbia** to 66.9 percent in **New York.** Generally college continuation rates were lowest in the South and West and highest in the Northeast and Midwest.

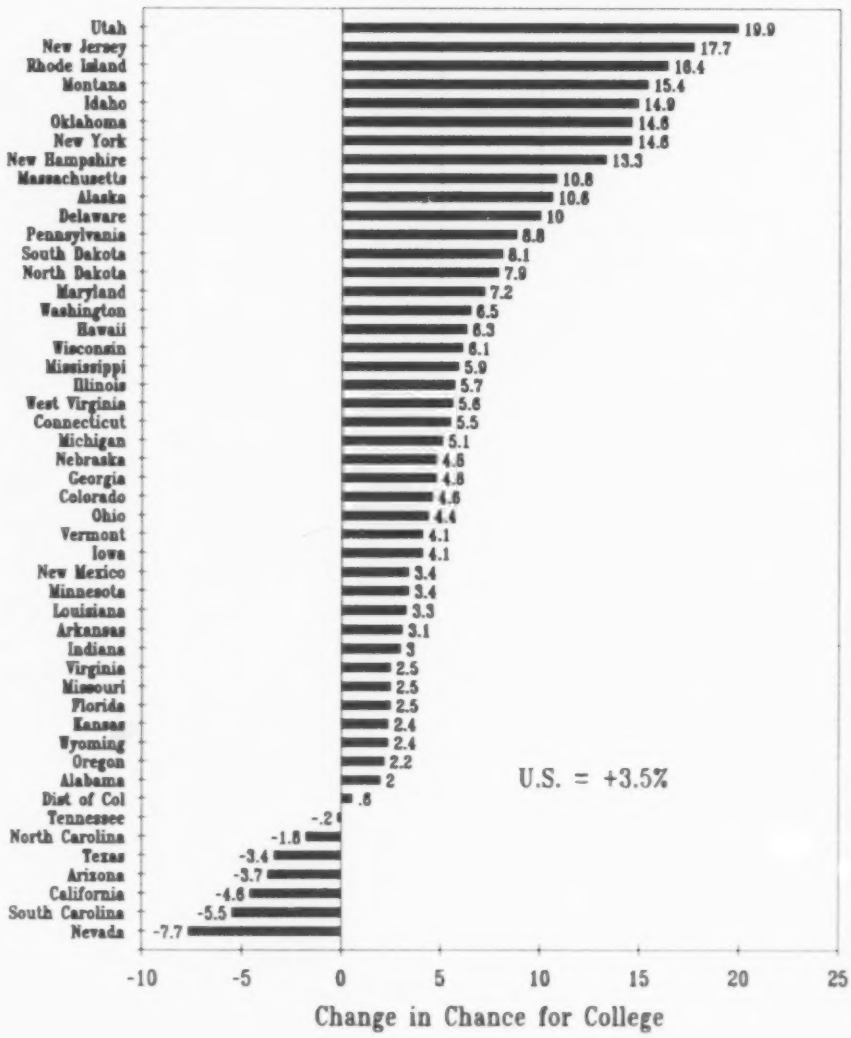
Between 1988 and 1992 the college continuation rate for the United States increased by 5.9 percent. The state with the largest increase in the proportion of its high school graduates continuing their educations in college immediately after graduation was **Utah**. The college continuation rate increased from 20.2 percent in 1986, to 27.0 percent by 1988, to 51.7 percent by 1992.

While some states had increases far above the national average, other states not only fell below the national gain but the college continuation rate in these states actually declined between 1988 and 1992. Chief among the states where the college continuation rate declined between 1988 and 1992 were three in the southwest: **Nevada** (-9.5%), **Arizona** (-7.3%), and **California** (-6.9%). The **Carolinas--both North and South**--followed with declines of between three and four percent.

Chance for College

The product of the high school graduation rate and the college continuation rate is the chance a 19 year old has of being enrolled in college. In 1992 this ranged from 19.7 percent in the **District of Columbia** to 57.6 percent in **North Dakota**, as shown on page 1 of this research letter. At these extremes, a 19 year old was three times more likely to be enrolled in college if he or she came from North Dakota than if he or she came from the District of Columbia.

Change in Chance for College by Age 19 by State Between 1988 and 1992



The strong geographic patterns evident in the 1986 and 1988 analyses are evident again in the 1992 study. Chance for college was and remains highest in the upper Midwest, followed closely by New England states. Chances are lowest in some southern and western states.

These rankings result directly from the public high school graduation and college continuation rates for each state. For example, **North Dakota's**

public high school graduation rate is third highest among the states, and its college continuation rate ranks second. The product of these two high rates produces its first place ranking on chances for college immediately after high school graduation. Besides North Dakota, both **Nebraska** and **Iowa** ranked in the top five in both public high school graduation rates and college continuation rates in 1992.

More interesting are those states that rank high in one measure but low in the other. For all states, the public high school graduation rate (71.2%) was considerably higher than was the college continuation rate (53.6%). However, in **Louisiana**, the public high school graduation rate (52.9%) was below the college continuation rate (54.2%). The same was true for **New York**.

At the other extreme, **Nevada** had a public high school graduation rate very close to the national average. But its college continuation rate was the lowest of any state. Similarly large differences between the public high school graduation rate and the college continuation rate existed in **Wyoming, Minnesota, Alaska, Montana, South Dakota, Arkansas, Maine, Idaho** and other states. In these states relatively higher public high school graduation rates were offset by relatively lower college continuation rates.

Change in Chance for College

Between 1988 and 1992 the change in chance for college for all states increased by 3.5 percent, following a 3.2 percent increase between 1986 and 1988. This increase occurred despite the decline in the public high school graduation rate from 73.3 percent in 1986, to 72.7 percent in 1988 and 71.2 percent in 1992. The decrease in the public high school graduation rate was more than offset by the increase in the college continuation rate, from 43.0 percent in 1986, to 47.7 percent in 1988 and 53.6 percent in 1992.

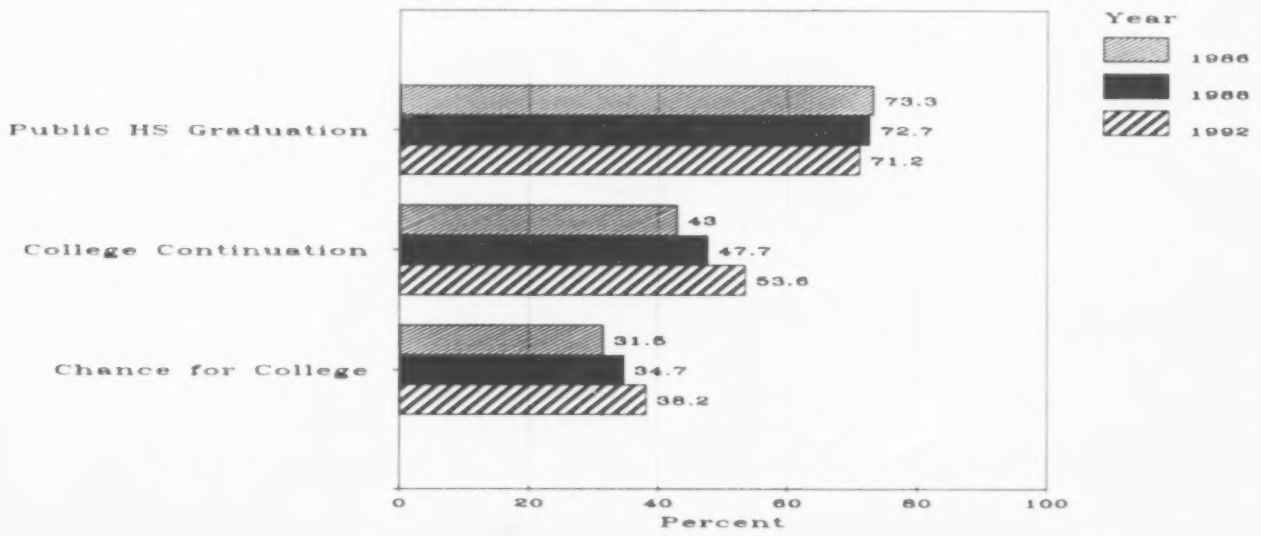
However, despite the overall increase in chance for college by age 19, the pattern varied widely across the states. At one extreme, chance for college by age 19 increased in **Utah** from 16.5 percent in 1986, to 22.0 percent in 1988, to 41.9 percent by 1992. Of the 48 states with apparently credible data (neither **Maine** nor **Kentucky** qualify), the chance for college increased in 41 states.

At the other extreme, in the adjacent state of **Nevada** the chance for college increased from 20.0 percent in 1986, to 30.9 percent in 1988, then *dropped* back to 23.2 percent in 1992. Besides Nevada, the chance for college *decreased* in six other states, including **South Carolina** (-5.5%), **California** (-4.6%), **Arizona** (-3.7%), **Texas** (-3.4%), **North Carolina** (-1.8%), and **Tennessee** (-0.2%).

These changes in chance for college between 1988 and 1992 reflect many changes within and between states. Chief among these are changes in public high school graduation rates--which went up in many states and declined in others--and changes in the rate at which recent high school graduates continue their educations in college--which also went up in some states and declined in others.

These changes in turn reflect the effects of the national economic recession--with its differing impacts and lingering effects in different parts of the country during this period. But these changes also reflect human choices: public policy decisions made by voters and their elected representatives in the states that broaden or narrow opportunity for postsecondary education and training.

Components of Chance for College for United States 1986, 1988 and 1992



Retrenchment in Allocation of State Resources to Public Higher Education Paused in FY1995

With the release of the annual survey results of state tax funds for higher education from Illinois State University, we can update our previous report (August 1994) on the allocation of state resources for higher education.

The overall results indicate that states appropriated $7.99 of state tax funds per $1000 of personal income for higher education for FY1995. This compares to $7.96 in FY1994 and $8.21 in FY1993.

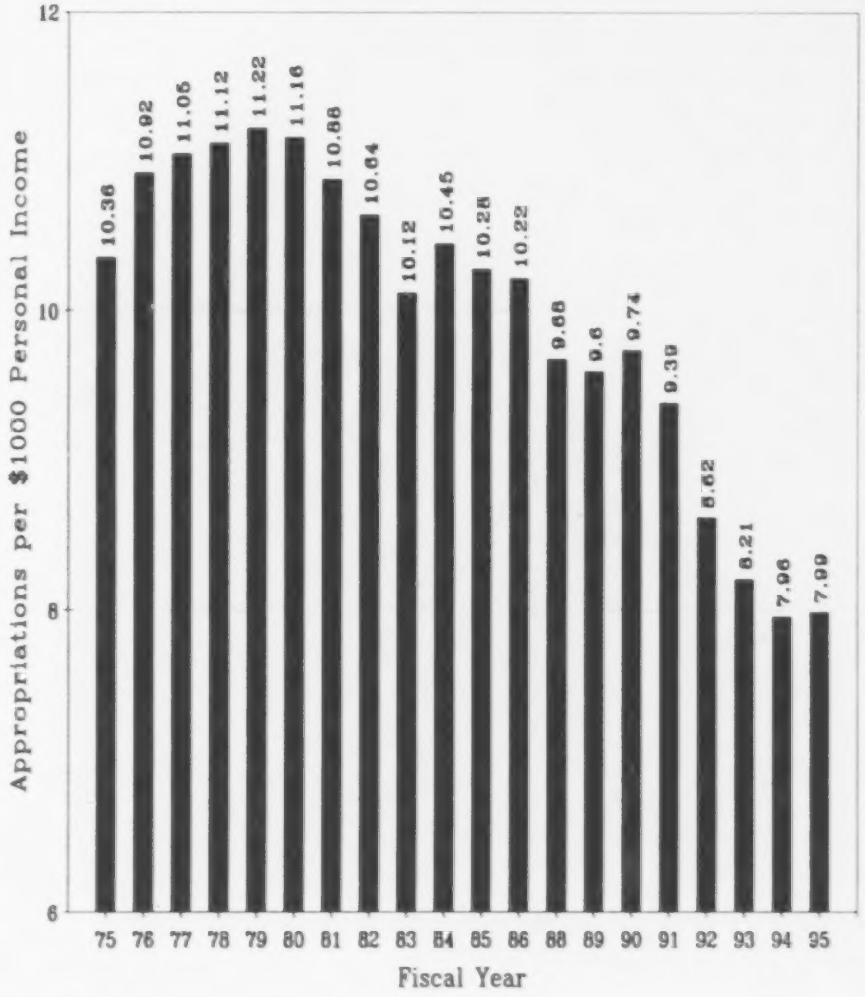
State tax fund appropriations for higher education per $1000 of personal income peaked at $11.22 in FY1979, and have declined almost steadily and very substantially since then. The pause in 1995 appears to be similar to pauses that occurred in FY1984 and FY1990 that briefly interrupted the long-term slide.

Between FY1994 and FY1995, state tax fund appropriations per $1000 of personal income increased in 26 states, decreased in 22 states, and held constant in the remaining two states. However, between FY1979 and FY1995, appropriations by this measure declined in 49 states and increased in only one--New Mexico.

Illinois State University Survey

This important survey of state tax fund appropriations for higher education was initiated by Professor M. M. Chambers of Illinois State University in 1960. These data are still collected by ISU's Center for Higher Education and Chambers' successor, Edward Hines with assistance by Gwen Pruyne and Rusty Higham. The final survey results and analyses thereof will be published by the State Higher Education Executive Officers early in 1995.

Appropriations of State Tax Funds for Operating Expenses of Higher Education per $1000 of Personal Income 1974-75 to 1994-95



The ISU survey's special value is its relatively early report on what all 50 states have appropriated for higher education. This first appears in an October issue of *The Chronicle of Higher Education*, about four months after state legislatures complete their appropriations legislation. (Only the National Conference of State Legislatures gets its preliminary state appropriations report out sooner, but with less detail and completeness.)

The ISU survey reports only state

Appropriations of State Tax Funds for Operating Expenses of Higher Education per $1000 of Personal Income

State	1974-75	1976-77	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	Change: 1978-79 to 1994-95 Dollars	Change: 1978-79 to 1994-95 Percent
Alabama	$11.54	$16.03	$18.04	$16.02	$16.29	$14.31	$12.64	$11.67	$13.73	$15.69	$12.42	$15.65	$14.73	$15.45	$13.02	$12.98	$13.08	$14.19	$-3.85	-21.3%
Alaska	18.42	19.60	16.64	16.42	17.98	23.84	25.91	20.85	20.26	26.98	16.55	17.21	17.59	15.94	15.05	14.49	13.67	12.44	$-4.20	-25.2%
Arizona	15.80	15.52	14.60	13.41	13.59	12.81	11.83	11.09	11.94	11.96	11.00	11.23	10.91	10.92	10.31	9.74	9.29	9.33	$-5.27	-36.1%
Arkansas	10.24	11.76	11.81	13.00	12.41	11.05	10.73	9.87	11.93	12.99	10.63	10.42	10.29	10.28	11.49	11.87	10.93	10.80	$-1.01	-8.6%
California	12.01	13.10	13.47	14.14	13.85	12.82	11.35	8.83	11.42	11.34	10.41	10.17	10.81	10.53	9.14	7.64	6.57	6.95	$-6.52	-48.4%
Colorado	13.64	13.60	12.66	11.41	10.44	10.53	10.53	9.90	9.57	9.23	8.86	9.25	9.29	8.88	8.40	8.10	7.46	7.10	$-5.56	-43.9%
Connecticut	7.40	6.76	8.26	7.68	7.93	7.12	6.29	6.15	6.48	6.32	6.55	6.84	6.22	6.08	6.01	5.68	5.56	5.46	$-2.80	-33.9%
Delaware	11.18	11.50	10.91	10.71	11.76	11.69	11.58	10.64	11.07	10.90	10.67	10.00	9.91	9.84	9.03	8.65	8.23	9.03	$-1.88	-17.2%
Florida	10.91	9.24	9.48	9.37	9.32	9.05	8.75	8.06	8.29	8.07	7.99	7.87	7.66	7.30	6.15	5.61	5.99	5.99	$-3.49	-36.8%
Georgia	11.29	10.60	11.42	11.30	11.06	11.28	10.73	10.18	10.28	9.86	9.25	9.13	9.14	9.30	7.88	8.24	8.29	8.43	$-2.99	-26.2%
Hawaii	12.74	17.25	16.80	15.95	16.20	15.83	17.10	15.17	15.14	15.40	16.10	16.15	15.90	14.49	14.17	14.21	14.70	14.09	$-2.71	-16.1%
Idaho	14.78	16.57	16.34	13.58	13.74	12.47	12.13	10.94	11.65	12.06	12.37	12.24	12.46	13.24	12.70	12.09	11.42	11.77	$-4.57	-28.0%
Illinois	9.45	9.00	9.34	8.76	8.77	8.28	7.76	7.73	8.29	8.27	7.40	7.35	8.21	7.85	7.42	7.18	7.07	7.19	$-2.15	-23.0%
Indiana	9.32	10.73	10.42	9.93	9.93	9.81	9.13	8.89	9.51	9.43	9.75	9.82	9.82	9.83	9.59	9.28	8.81	8.44	$-1.98	-19.0%
Iowa	9.65	12.77	13.77	13.10	13.05	12.51	12.55	11.88	12.62	11.25	11.60	11.87	12.09	13.12	11.77	12.45	11.94	12.44	$-1.33	-9.7%
Kansas	10.47	12.73	13.39	12.91	11.88	11.78	12.11	10.88	11.51	10.89	10.10	10.21	11.31	11.07	9.91	10.19	9.78	9.99	$-3.40	-25.4%
Kentucky	12.58	12.12	13.27	12.96	11.80	12.72	11.79	11.97	11.69	11.29	11.92	11.53	11.51	11.88	11.59	10.72	9.97	10.24	$-3.03	-22.8%
Louisiana	12.54	11.55	12.03	12.39	13.07	12.76	12.24	10.26	12.19	11.87	10.21	9.44	9.65	10.35	9.38	9.70	8.34	8.27	$-3.76	-31.3%
Maine	10.89	8.33	7.87	8.34	8.11	7.48	7.44	6.29	7.23	8.07	9.37	9.81	9.71	9.86	8.83	8.03	7.71	7.44	$-0.43	-5.5%
Maryland	8.13	9.68	9.34	9.34	9.50	8.73	8.84	8.14	8.64	8.47	8.17	8.46	9.14	8.97	7.69	7.31	6.58	6.64	$-2.70	-28.9%
Massachusetts	6.54	6.75	6.51	6.88	6.29	6.26	6.42	5.38	8.39	8.30	8.66	7.75	6.66	5.32	4.30	4.63	5.79	6.14	$-0.37	-5.7%
Michigan	10.44	10.51	10.55	10.37	9.43	9.19	8.71	8.54	9.67	10.02	9.72	9.45	9.21	9.19	9.02	8.81	8.33	8.26	$-2.29	-21.7%
Minnesota	9.71	14.20	13.88	14.53	13.28	12.96	11.82	13.07	12.70	13.11	12.82	12.74	13.19	13.38	12.11	11.39	11.02	10.86	$-3.02	-21.8%
Mississippi	16.12	16.21	18.22	17.59	17.41	18.08	15.81	16.80	15.58	17.49	14.20	15.76	14.87	14.43	12.49	12.66	12.43	16.17	$-2.05	-11.3%
Missouri	8.59	9.02	8.92	8.81	8.80	7.97	7.51	6.98	7.37	7.46	7.20	7.35	7.60	7.58	6.36	6.39	6.17	6.57	$-2.35	-26.3%
Montana	11.33	11.62	11.81	11.42	11.01	12.43	12.77	12.73	13.22	12.45	10.87	10.54	10.57	10.28	10.81	9.93	8.73	7.74	$-4.07	-34.5%
Nebraska	10.51	13.00	13.40	12.72	12.16	12.70	11.60	11.35	11.91	10.77	10.35	11.10	12.27	13.23	12.26	12.71	11.77	11.64	$-1.76	-13.1%
Nevada	9.44	10.76	9.91	9.13	8.41	7.66	7.35	7.02	6.99	7.78	7.58	7.36	7.94	7.63	8.23	8.17	6.87	6.15	$-3.76	-37.9%
New Hampshire	4.95	5.26	4.97	4.65	4.44	4.67	3.77	2.93	3.70	3.90	4.09	3.91	3.53	3.25	3.25	3.08	3.20	3.42	$-1.55	-31.2%
New Jersey	6.73	6.41	6.33	6.23	6.08	5.76	5.55	5.31	5.56	7.31	7.14	7.23	6.73	5.74	5.87	5.91	5.93	5.98	$-0.35	-5.5%
New Mexico	14.40	14.98	16.42	15.78	15.27	16.79	16.26	14.83	16.37	16.06	14.37	15.09	15.75	16.71	16.12	16.10	15.98	16.57	$0.15	0.9%
New York	11.13	10.52	10.52	10.57	10.23	10.27	9.96	9.66	10.27	10.02	9.66	9.69	9.21	8.31	6.94	6.63	6.82	6.89	$-3.63	-34.5%
North Carolina	14.93	15.11	15.91	15.82	15.96	16.00	15.41	15.23	16.13	16.13	16.30	15.57	15.71	14.86	13.34	13.58	13.25	13.28	$-2.63	-16.5%
North Dakota	8.71	13.38	15.14	16.18	13.99	18.97	16.14	14.12	13.70	14.68	13.95	13.51	16.34	14.49	15.03	14.70	13.14	13.23	$-1.91	-12.6%
Ohio	7.09	8.03	7.98	7.93	7.70	6.82	7.61	7.41	7.92	8.17	8.41	8.38	8.46	8.51	7.66	7.08	7.08	7.16	$-0.82	-10.3%
Oklahoma	9.17	10.69	11.02	11.13	11.02	11.78	12.59	11.22	10.17	11.08	9.52	10.11	10.49	11.16	11.15	11.30	10.19	9.83	$-1.19	-10.8%
Oregon	12.08	13.38	13.25	12.62	11.09	10.27	9.07	9.61	9.85	10.05	9.73	9.44	9.61	9.36	9.37	9.45	7.81	7.37	$-5.88	-44.4%
Pennsylvania	8.17	9.39	8.46	8.12	7.39	7.36	7.08	5.83	7.23	7.26	6.94	6.98	6.99	6.84	6.67	6.01	6.18	6.18	$-2.28	-27.0%
Rhode Island	9.99	11.97	10.48	10.23	9.91	9.50	9.41	9.16	9.44	8.95	8.88	9.05	8.62	7.88	6.15	6.16	5.62	5.90	$-4.58	-43.7%
South Carolina	17.06	16.05	16.36	16.31	16.65	15.89	14.69	13.82	15.04	15.13	13.66	14.02	13.66	13.47	11.97	11.50	10.18	10.36	$-6.00	-36.7%
South Dakota	9.98	11.41	11.09	10.54	9.97	9.64	8.83	7.81	8.45	7.93	8.85	8.70	9.46	9.34	8.85	9.24	9.22	8.78	$-2.31	-20.8%
Tennessee	10.05	9.80	11.28	11.15	10.51	10.05	9.61	9.14	10.62	11.15	11.09	10.78	10.71	10.25	8.93	9.16	9.06	9.21	$-2.07	-18.4%
Texas	9.44	13.33	11.94	13.08	12.46	13.99	12.85	12.84	12.87	10.97	9.92	9.65	10.68	9.67	9.90	9.37	9.85	9.01	$-2.93	-24.5%
Utah	16.08	17.34	17.58	16.93	16.35	15.54	15.56	14.10	15.54	15.52	14.07	13.60	13.21	13.25	13.21	13.36	12.84	13.25	$-4.33	-24.6%
Vermont	10.70	8.62	9.41	8.46	8.43	8.44	8.38	7.92	7.96	7.80	7.00	6.87	7.03	6.45	5.64	5.38	5.03	4.75	$-4.66	-49.5%
Virginia	10.31	11.00	12.08	11.24	11.42	10.81	10.97	9.84	10.53	10.27	10.27	10.59	10.42	9.34	8.43	7.40	7.03	6.99	$-5.09	-42.1%
Washington	13.15	14.00	13.81	14.59	12.46	11.66	10.47	11.01	10.82	10.59	10.13	10.16	10.32	10.00	9.74	9.31	8.81	8.24	$-5.57	-40.3%
West Virginia	12.53	12.91	13.31	12.88	12.27	12.60	11.81	11.41	12.23	12.27	11.66	12.08	11.42	11.46	11.29	11.05	10.69	10.34	$-2.97	-22.3%
Wisconsin	15.08	13.94	13.53	13.30	12.76	12.06	11.56	11.69	11.46	11.02	10.60	10.42	10.55	10.54	10.02	10.16	9.76	9.81	$-3.72	-27.5%
Wyoming	14.67	14.74	15.31	14.12	15.79	16.04	16.94	16.64	16.45	17.65	17.61	18.43	17.81	17.54	16.93	15.69	14.74	13.87	$-1.44	-9.4%
All States	$10.36	$11.05	$11.22	$11.16	$10.88	$10.64	$10.12	$10.45	$10.28	$10.22	$9.68	$9.60	$9.74	$9.39	$8.62	$8.21	$7.96	$7.99	$-3.23	-28.8%

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appropriations--not expenditures--for annual operating expenses. Sums included are those provided for public universities, colleges, community colleges, two-year vocational-technical colleges or institutes which are for high school graduates and adult learners, to statewide coordinating boards, for state student aid programs, to other state agencies for higher education purposes, and sums appropriated directly to private institutions. Sums excluded are those provided for capital outlays and debt service, and federal funds, students fees, auxiliary enterprises and other non-tax sources.

In some states, the tabulation of appropriated tax funds for higher education understates what such states actually provide from state resources. Earmarked state funds may add or subtract from state funding for higher education. For example, state lottery money may be dedicated to some specific state function, sometimes including higher education. According to data from the National Conference of State Legislatures, in FY1994 higher education benefitted from earmarked state funding in **Maryland, Illinois, Wisconsin, Kansas, Missouri, Arkansas, Georgia, Louisiana, Mississippi, and Montana.** Higher education lost appropriated shares of general state revenue when earmarked funds were included in **Florida, Virginia, Texas, Idaho, California**, and **Hawaii**.

In the mid-1970s, *The Chronicle's* annual report began to include--in addition to the state appropriations themselves--appropriations on a per capita and per $1000 of personal income bases, state-by-state, to control for different measures of state effort. Here we use state appropriations per $1000 of personal income, which is no longer reported by *The Chronicle*, to leapfrog issues of taxable resources and tax effort which are not our concern here.

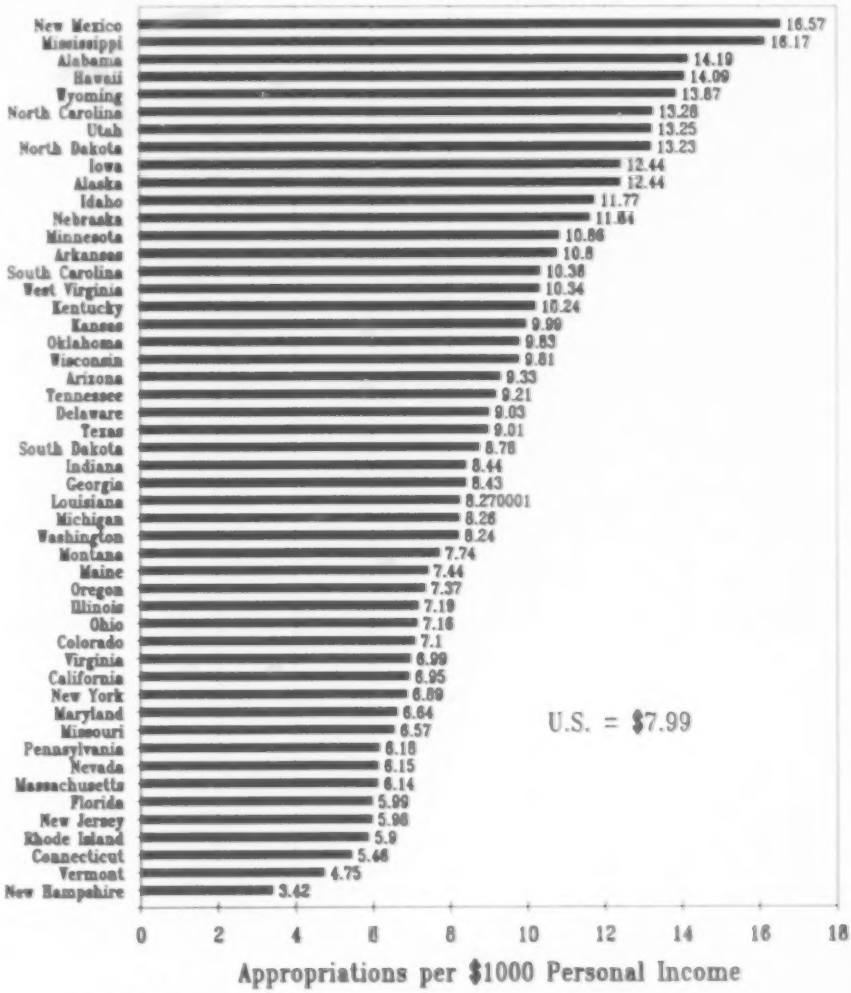
The Results

State appropriation of tax funds for higher education operations increased from $10.36 per $1000 of personal income in FY1975--the first year of *The Chronicle*'s report in this format--to a peak of $11.22 in FY1979. After this the allocation of state resources began a nearly steady and very substantial decline to a low of $7.96 in FY1994. The FY1995 figure of $7.99 reflects a pause in the decline, similar to pauses in FY1984 and FY1990, after which the declines resumed.

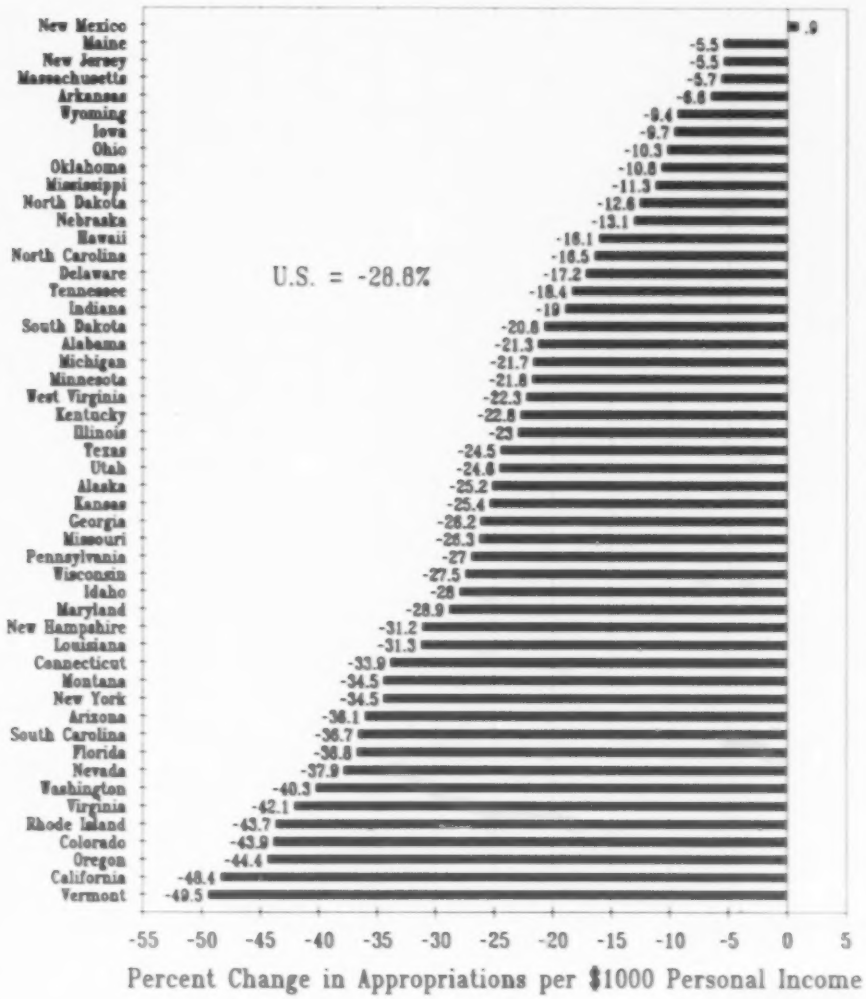
Between FY1979 and FY1995 every state except **New Mexico** reduced the share of its social resources allocated to higher education. Uniquely among the states, New Mexico increased the allocation of its social resources in support of higher education by 0.9 percent during this period.

The average state reduction was $3.23

Appropriations of State Tax Funds for Operating Expenses of Higher Education per $1000 of Personal Income 1994-95



Change in Appropriations of State Tax Funds for Operating Expenses of Higher Education per $1000 of Personal Income Between 1978-79 and 1994-95



per $1000 of personal income, or 28.8 percent, between FY1979 and FY1995. **Vermont** reduced state support by the largest percentage reduction--by 49.5 percent. Other states with percentage reductions in state tax funds per $1000 of personal income of 40 percent or more were: **California** (-48.4%), **Oregon** (-44.4%), **Colorado** (-43.9%), **Rhode Island** (-43.7%), **Virginia** (-42.1%), and **Washington** (-40.3%). States with reductions of less than 10 percent--besides New Mexico--were **New Jersey** and **Maine** (-5.5%), **Massachusetts** (-5.7%), **Arkansas** (-8.6%), **Wyoming** (-9.4%), and **Iowa** (-9.7%).

In FY1995 the range in state appropriations for higher education was from a low of $3.42 per $1000 of personal income in **New Hampshire** to a high of $16.57 in **New Mexico**. Historically these two states have lagged and led the other 48 states in their allocation of social resources for higher education through appropriated state tax funds.

Between FY1994 and FY1995 only two states--**Florida** and **Pennsylvania**--kept their allocation of social resources at the same levels in both years. In 26 states appropriations per $1000 of personal income increased. States with *increases* in state appropriations per $1000 of personal income of five percent or more were: **Mississippi** (+30.1%), **Delaware** (+9.7%), **Alabama** (+8.5%), **New Hampshire** (+6.9%), **Missouri** (+6.5%), **Massachusetts** (+6.0%), **California** (+5.8%), and **Rhode Island** (+5.0%). States that *reduced* their state tax fund appropriations per $1000 of personal income by five percent or more between FY1994 and FY1995 were: **Montana** (-11.3%), **Nevada** (-10.5%), **Alaska** (-9.0%), **Texas** (-8.5%), **Washington** (-6.5%), **Wyoming** (-5.9%), and **Oregon** and **Vermont** (-5.6%).

Prospects for the Future

In recent years state tax fund appropriations for higher education have declined as a share of state appropriations for all state government services. We see plenty of reasons to expect this trend to continue for the foreseeable future:

- Corrections costs will continue to place high priority claims on state resources. Prisons are already overcrowded, the political climate favors longer periods of incarceration, and labor market prospects for the unskilled are terrible and likely to get worse.

- Medicaid--health care for the poor--will also have a high priority claim on state resources, both because the poverty rate is increasing and so are health care costs. Their combined effects are deadly on state budgets.

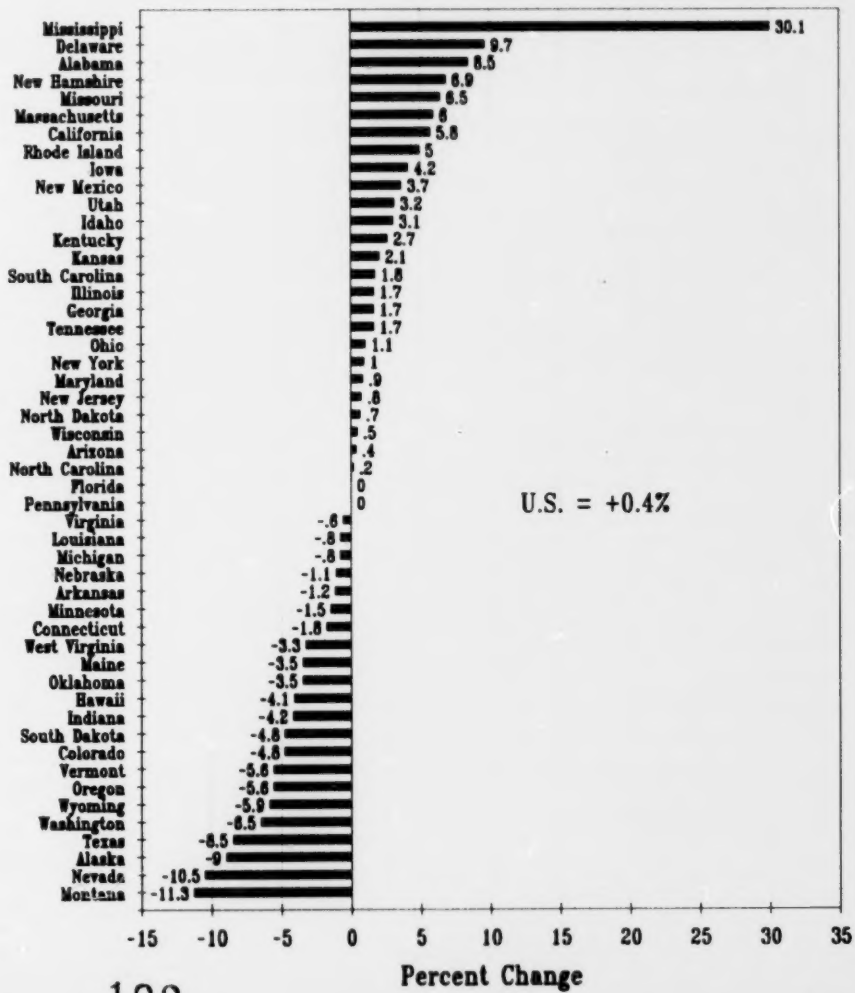
- Taxpayers do not appear to be willing to pay more than they are currently paying for government services through higher taxes.
- The structure of state taxes is not well designed to tap the economic activities that are growing in economic importance nor addresses demographic realities. The present state tax system--based on the general sales tax, personal income tax, and corporate income tax--dates from the 1930s when manufacturing dominated economic activity. State tax systems have far to go to catch up with sweeping changes in technology, processes and services that did not exist 60 years ago. And the American population is older, more mobile, and portions of it are more dependent on government services than in the past.
- With the private lifetime return on a baccalaureate investment in the vicinity of a half million dollars, it is unclear why public monies should subsidize two-thirds of the costs of a higher education *for those who can afford to pay for more or all of their own higher education from their own or family resources*. Subsidizing those who do not need state funds makes no economic sense. Whatever states are willing to invest in the higher educations of their future workforces should be reserved for those who can demonstrate financial need for such assistance.

We expect the share of state personal income appropriated by states to higher education to continue to decline for the foreseeable future as it has for all but three of the last 15 years.

Given the labor market signals that only those with postsecondary education or training are likely to qualify for adequately compensated positions in the job market, and given the growing share of social program costs incurred by those unable to survive and thrive in this market, we see a social imperative to redirect public higher education investments.

- Partly there is a problem of investment levels. It seems odd to us that as government becomes evermore dependent on the tax revenues paid by college-educated workers, government should be reducing the share of its tax resources invested in the higher educations of its future workforce.
- At the federal level, there is the problem of the form of investment made by government. The appearance of expanding financial aid through cheap-to-government butexpensive-to-studenteducational loans flies in the face of 40 years of econometric research that says making college less affordable decreases enrollments, while making college more affordable increases student enrollments.
- At the state level, all 50 states have simply walked away from covering tuition increases with financial aid when tuitions are increased to offset losses in institutional appropriations when states shift funds from higher education into corrections and Medicaid.

Change in State Appropriation of Tax Funds for Higher Education per $1000 of Personal Income Between FY1994 and FY1995



Current Funds Expenditures of Higher Education as a Proportion of Gross State Product

As the private investment return on higher education increases relative to secondary education, individuals have incentives to pursue higher educations after high school.

Similarly, social investment returns on higher education have increased as the proportion of federal incomes taxes paid by households with college educated heads has increased over the last two decades.

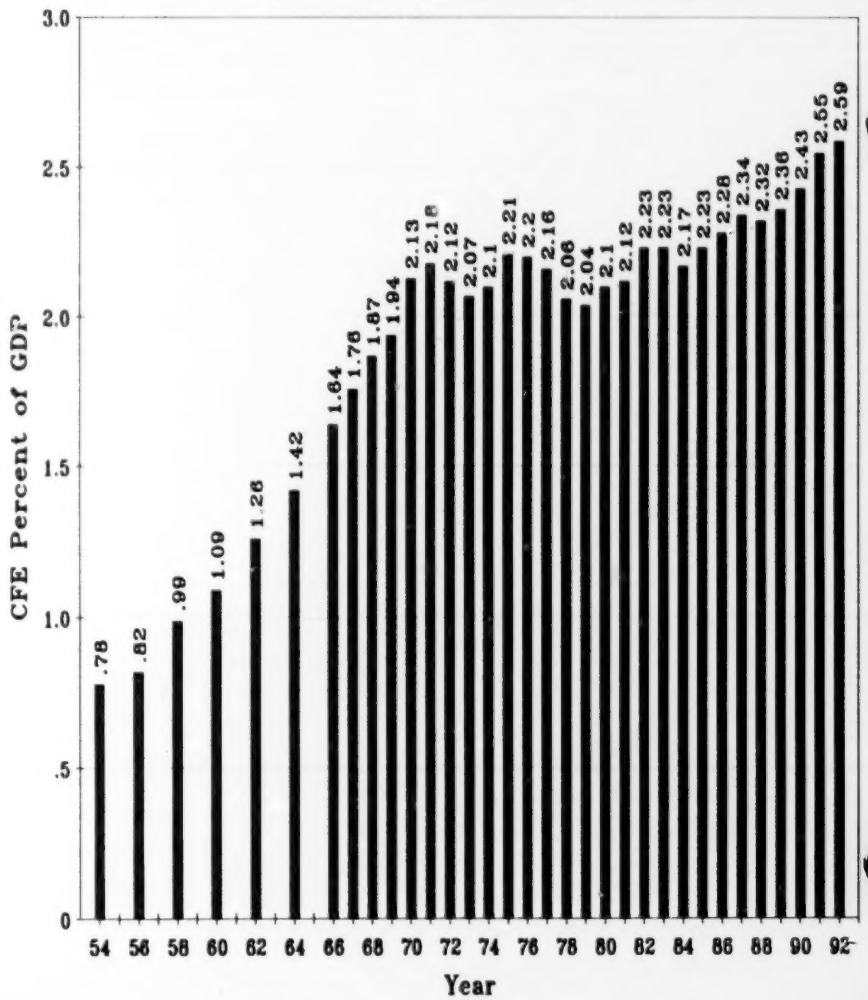
Here we examine a third investment return on higher education investments--the proportion of Gross State Product contributed by the expenditures of public and private higher education. Quite logically as higher education becomes more important to the welfare of individuals and society, we should expect to see a growth in the proportion of domestic activity produced by the immediate and direct activity of public and private higher educations in the states.

This analysis was suggested by Dr. Jack Hoy, President of the New England Board of Higher Education. Dr. Hoy had noticed our analysis of higher education finance using the National Income and Product Accounts in the August 1994 issue of **OPPORTUNITY**, and wondered if the same general analysis could be constructed on a state-by-state basis. We prepared such an analysis for him for the six New England states. The results of that analysis will be published in **CONNECTION**, the quarterly journal of NEBHE next year. Here we present other analyses of these same data sets.

Our analysis suggests the following findings:

- Higher education is a substantial and growing share of Gross State Product for most states. While this growth was most rapid between 1954 and 1971, growth resumed at a somewhat slower pace in 1980 and continues through 1992, the most recent year of complete data.
- The proportion of Gross State Product accounted for by higher education varies widely among the states. It is highest in the **District of Columbia, Vermont, Massachusetts** and **Iowa**. It is smallest in **Nevada, Alaska, New Jersey** and **Florida.**
- The share of Current Fund Expenditures of higher education contributed by public institutions grew sharply between 1965 and 1976, but has been shrinking gradually since then. Private

Current Fund Expenditures of Higher Education as Percent of Gross Domestic Product 1954 to 1992



higher education's share has increased slowly but steadily between 1976 and 1992.

- Higher education appears to contribute to economic stability in the states during periods of economic recession. Current Funds Expenditures of higher education appear to increase most dramatically as a share of Gross State Product during economic recession, and especially in states hardest hit by economic recession that have significant higher education activity, such as New England.

These and many other findings are gleaned from our analysis of higher education's role in state economic activity. We present our analysis of these important data herewith.

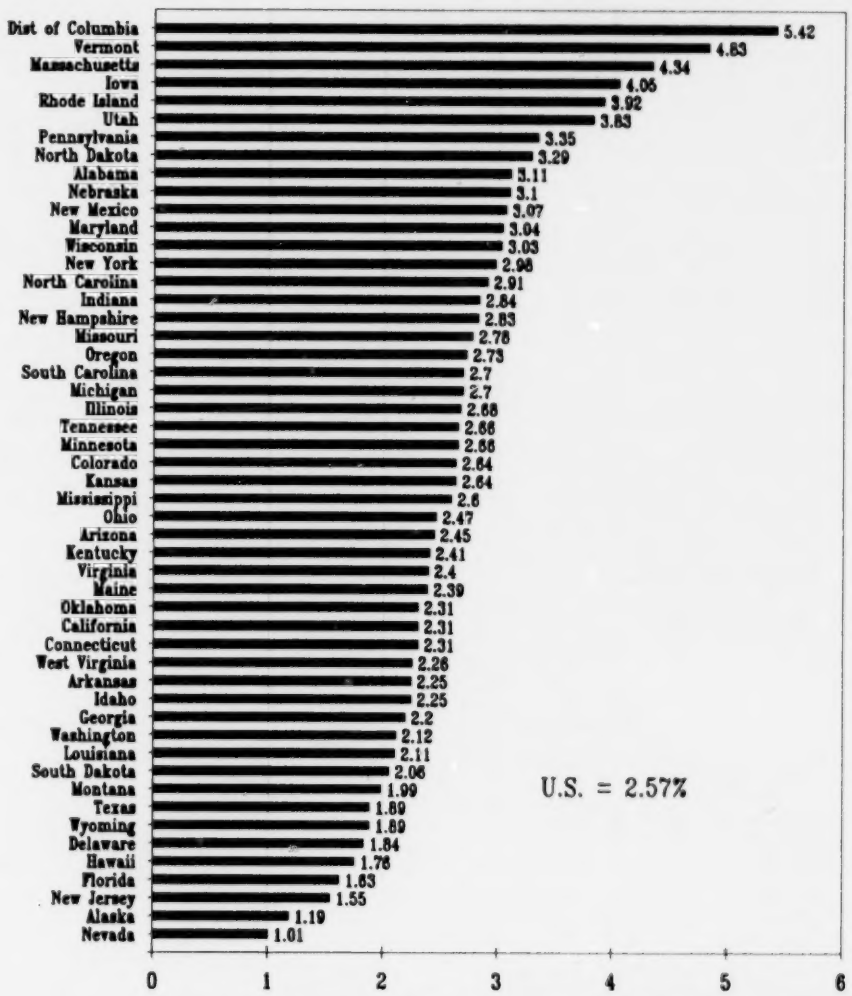
Gross State Product

Beginning in 1988 the Bureau of Economic Analysis at the Department of Commerce has disaggregated the nation's Gross Domestic Product (GDP) to the state level and produced estimates of Gross State Product (GSP) that sum to the national total.

Renshaw, V., Trott, Jr., E. A., and Friedenberg, H. L. "Gross State Product by Industry, 1963-86. *Survey of Current Business*. May 1988, pp. 30-46.

Gross State Product is defined as the market value of the goods and services produced by the labor and property located in a state. It is the state counterpart to the nation's Gross Domestic Product. Each state's GSP consists of four components: compensation of employees, proprietors' income, indirect business taxes and nontax liabilities, and capital charges.

Higher Education's Share of Gross State Product 1991



GSP estimates have been published by the Bureau of Economic Analysis for the years 1963, 1967, and 1972 through 1991. The most recent revision of these frequently revised estimates span the years from 1977 through 1991.

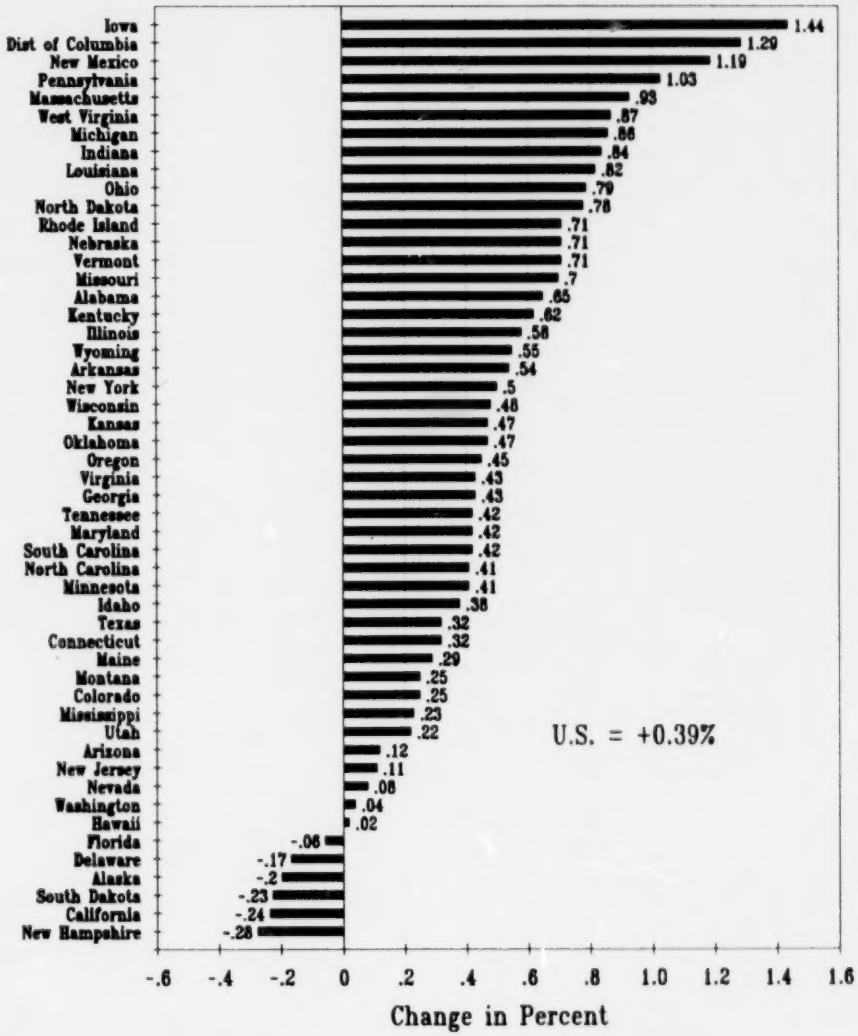
Beemiller, R. M., and Dunbar, A. E. "Gross State Product, 1977-91." *Survey of Current Business*. August 1994, pp. 80-97.

Current Fund Expenditures of Public and Private Higher Education

The National Center for Education Statistics and its many, many predecessors have diligently collected financial statistics on higher education since 1889-90.

These data take many forms and definitions over the last 100 years. So for continuity's sake we have adopted an inclusive definition of Current Funds Revenues (CFR) and Current

Change in Higher Education's Share of Gross State Product Between 1977 and 1991



Funds Expenditures (CFE) and collected these data from NCES sources (mainly Dr. Vance Grant's personal library) for public and private higher education, by state, for the available years between 1954 and 1992.

Current Funds Expenditures includes expenditures of funds from all sources for Educational and General (the central educational functions of higher education) plus auxiliary enterprises, independent operations, hospitals and other current expenditures.

Higher Education's Direct Impact on Gross State Product

As shown in the chart on page 12, Current Funds Expenditures of higher education amounted to 2.59 percent of Gross Domestic Product in 1992. Over the period between 1954 and 1992, higher education's share of GDP more than tripled. Much of this growth occurred between 1954 and 1971, but more modest growth resumed about 1980 and the 1992 figure is the highest on record.

As shown on the chart on page 13, in 1991 higher education's share of GSP ranged from 1.01 percent in **Nevada** to 5.42 percent in the **District of Columbia**. A casual glance at this ranking suggests that higher education plays a larger role in the economy of New England than in other regions of the country. It appears to play the smallest role in the economies of some western and southern states.

Between 1977 and 1991, higher education's share of GDP increased by 0.39 percent. However, higher education's share of GSP did not increase in all states during this period. In six states it actually decreased. Super stingy **New Hampshire** reduced higher education's share of GSP by the largest amount (-0.28%). **California** (-0.24%), **South Dakota** (-0.23%), **Alaska** (-0.20%), **Delaware** (-0.17%) and **Florida** (-0.06%) followed.

At the other extreme higher education's direct economic role increased between 1977 and 1991 by more than 1 percent in four states: **Iowa** (+1.44%), **District of Columbia** (+1.29%), **New Mexico** (+1.19%) and **Pennsylvania** (+1.03%). Other states with substantial increases in higher education's share of GSP during this period were **Massachusetts, West Virginia, Michigan, Indiana** and **Louisiana**. .

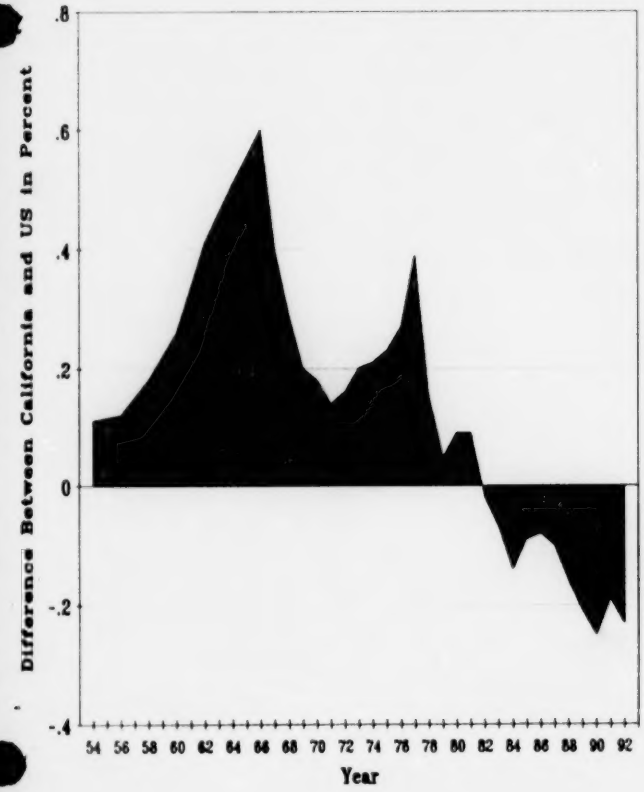
California's Travails

The collapse in state support for public higher education in **California** is evident in the data in the table on page 8 of this issue of **OPPORTUNITY**. In FY1980 state tax fund appropriations for higher education were $14.14 per $1000 of personal

income. By FY1995 this had dropped by more than half, to $6.95 per $1000 of personal income. The tax effort of California in support of higher education moved from 127 percent of the national average in FY1980 to 87 percent of the national average by FY1995.

We can gain some additional insight into California's travails by taking the more comprehensive approach afforded by comparing California's Current Fund Expenditures of public and private higher education as a percent of Gross State Product to equivalent national data. Because tuitions were increased in state institutions to offset losses in state tax fund appropriations and some portion of public higher education's loss was private higher education's gain, the more comprehensive view should not be so brutal as that suggested by the halving of state tax support for public higher education alone. The following chart summarizes the proposed comparison.

Difference Between California CFE as Percent of GSP and United States CFE Percent of GDP 1954 to 1992



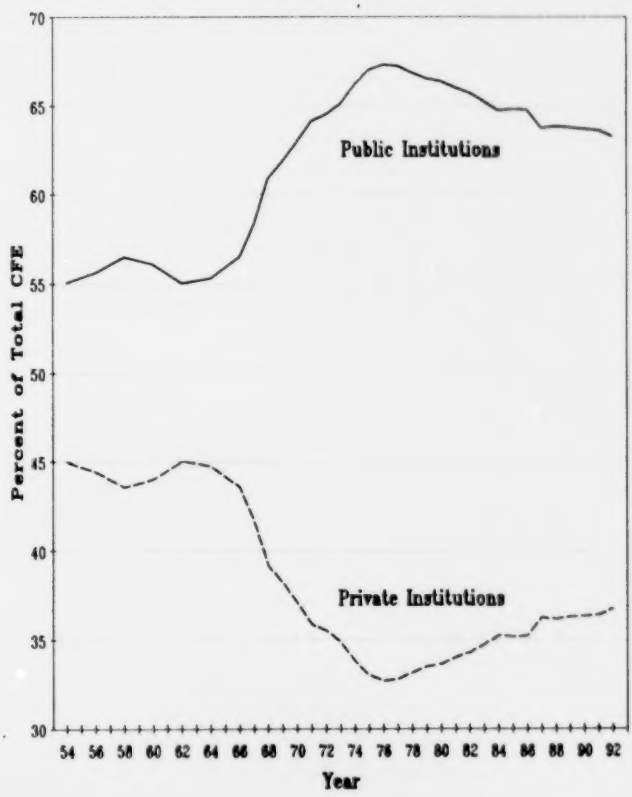
California clearly got a jump-start on the rest of the United States in its development of higher education during the 1960s. In the mid-1960s California higher education represented a far larger share of GSP compared to the rest of the country than it had before or has since. Then beginning in the mid-1970s the rest of the country began to catch up to California, and in 1982 California higher education's CFE share of GSP dropped below the national average. The decline has continued up to the present.

Within California, public higher education's economic weakness has been partially offset by strength in private higher education. Between 1976 and 1992, while public higher education's share of Current Fund Expenditures was dropping from 74.7 percent to 68.6 percent of the total, private higher education's share grew from 25.3 percent to 31.4 percent of the total.

Public-Private Distribution of CFE

The gradual shift in the distribution of Current Fund Expenditures from public to private in California higher education has occurred nationally as well between 1976 and 1992. As state support for public higher education institution

Distribution of Current Funds Expenditures Between Public and Private Higher Education 1954 to 1992



has weakened, so too has public higher education's share of Current Funds Expenditures.

The decline in public institutions' share of total Current Funds Expenditures that began in California in 1977 had begun about the same time in the national data as well. But in California the drop was greater: -6.06 percent versus -4.04 percent for all states.

Because of this shift, private institutions appear to be prospering relative to public institutions, and their share of CFE contribution to Gross State Product is also increasing.

Summary

As higher education becomes increasingly important to improving private welfare--because the best paying jobs are now nearly all reserved for the college-educated--a growing share of the population can be expected to try to pursue higher education enrollment, study, and degrees. In fact precisely this has occurred: the proportion of recent high school graduates continuing their educations in college the fall following high school graduation has increased from 46.6 percent in 1973 to 62.6 percent by 1993.

Moreover, the proportion of the population of the United States enrolled in higher education is increasing much faster than the share of Gross Domestic Product accounted for by Current Funds Expenditures of institutions of higher education. Since 1970 CFE's share of GDP increased from 2.13 to 2.59 percent, or by 0.46 percent. During this period the share of the U.S. population enrolled in higher education increased from 4.21 to 5.71 percent, or by 1.50 percent. This unfunded enrollment growth places special strains on the quality of the learning experience for students.

Somewhat separate from the importance of the private benefits from higher education are the social benefits that accrue to society from the investment of social resources. The share of federal individual income taxes paid by households with college-educated heads has increased from 41.6 percent in 1970 to 52.1 percent by 1980 and 66.0 percent by 1991. The services provided by government to its citizens are increasingly financed by revenues generated by college-educated taxpayers.

Beyond these private and public investment returns, this analysis has shown the direct and immediate economic role played by higher education--both public and private--in state economic activity. The expenditures of colleges and universities make up from one to 5.4 percent of Gross State Product. These dollars have multipliers as they bounce around in communities, to pay for groceries, housing, services and other living expenses of institutional employees and vendors. In those states that import students from other states, resources brought with them add to GSP. Moreover, higher education's relative financial stability helps states through recessionary times. These direct and immediate contributions to economic activities in the states are significant, stabilizing, and they are growing in importance.

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Postsecondary Education
OPPORTUNITY

The Mortenson Research Letter on Public Policy Analysis of Opportunity for Postsecondary Education

Number 30 | **Iowa City, Iowa** | **December 1994**

Going Way Away . . . . . to College
Interstate Migration of College Freshmen

The rite of passage of American youth known as "going away to college" may mean enrolling at a college a few blocks from home or heading across the country for the special appeal of a far more distant institution.

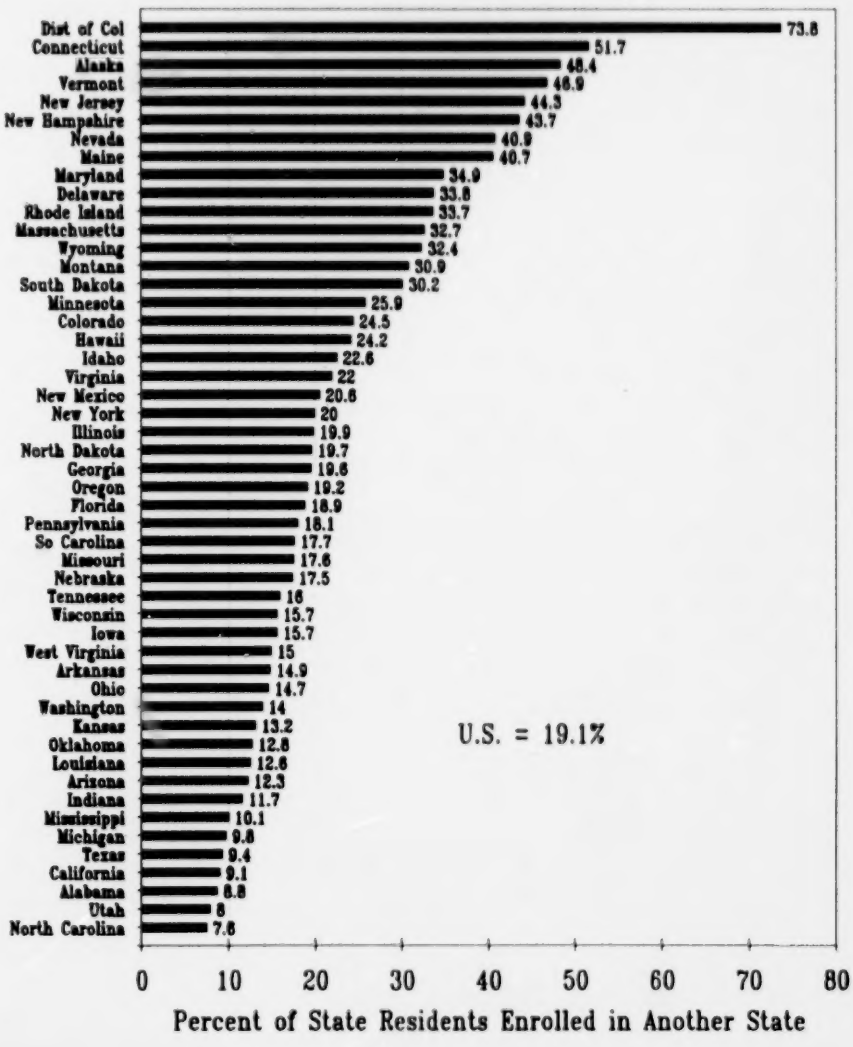
Students choose and attend colleges for many reasons, such as to "get away from home." Some get much farther from home than others. Here we examine the migration between states of fall 1992 college freshmen who graduated from high school during the previous twelve months.

In 1992 about one in five college freshmen enrolling in college directly out of high school entered a college or university in another state. About 90 percent of these emigrants enrolled in a four-year college or university.

Here we examine three main aspects of interstate freshmen migration: emigration, immigration and net migration, for each state for the year 1992. We also describe changes in freshmen migration rates for each state between 1988 and 1992.

We are also interested in state policies that foster or impede interstate migration of undergraduates in search of higher education opportunity. In particular we look at portability and reciprocity policies that help students to leave their home states by assisting in their financing in another state. We also look at the larger questions of state policy constraints on interstate migration of college students, particularly the limitation of financial assistance at instate institutions. We would like to have examined more years of interstate migration

College Freshmen Leaving State of Residence to Attend College, 1992



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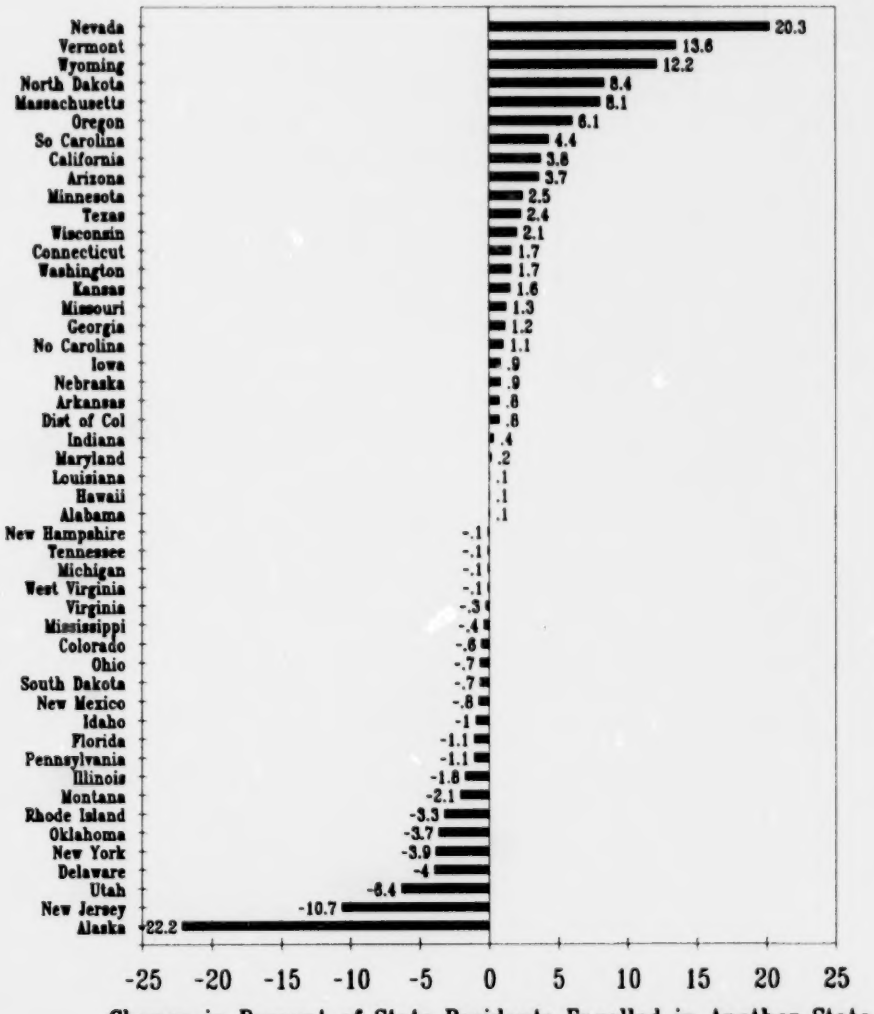
enrollment data. But changing definitions and incomplete state reports for 1990 limited our analyses. Moreover, where published data are clearly incomplete for a state (e.g., Maine in 1988 and Kentucky in 1992), we have dropped these states from comparisons.

All data used in this analysis were collected from institutions by the National Center for Education Statistics through the Integrated Postsecondary Education Data System (IPEDS) and have been published in the encyclopedic *Digest of Education Statistics* for 1994 and prior years.

Emigration of College Freshmen

In the fall of 1992, there were 1,332,400 first time college freshmen who had graduated from high school in the previous twelve months whose state of residence was known. Of these freshmen, 254,100 or 19.1 percent left their state of residence to enroll in college in another state. Of this emigrant total, 232,000 or 91 percent were enrolled in a four-year college or university.

Change in College Freshmen Leaving State of Residence to Attend College, 1988 to 1992



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Editor and Publisher
Thomas G. Mortenson
Phone: (319) 351-4913
Fax: (319) 351-0779
TIN: 470520190

Mission Statement

This research letter is founded on two fundamental beliefs. First, sound public social policy requires accurate, current, independent, and focused information on the human condition. Second, education is essential to the development of human potential and resources for both private and public benefit. Therefore, the purpose of this research letter is to inform those who formulate, fund, and administer public policy and programs about the condition of and influences that affect postsecondary education opportunity for *all* Americans.

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The states with the largest *numbers* of emigrant freshmen were **New York** (21,765), **New Jersey** (21,300), **Illinois** (14,411), **California** (12,508), **Pennsylvania** (12,321), **Massachusetts** (11,854) and **Connecticut** (10,218). These seven states had 37 percent of all freshmen and exported 41 percent of the emigrant freshmen enrollment.

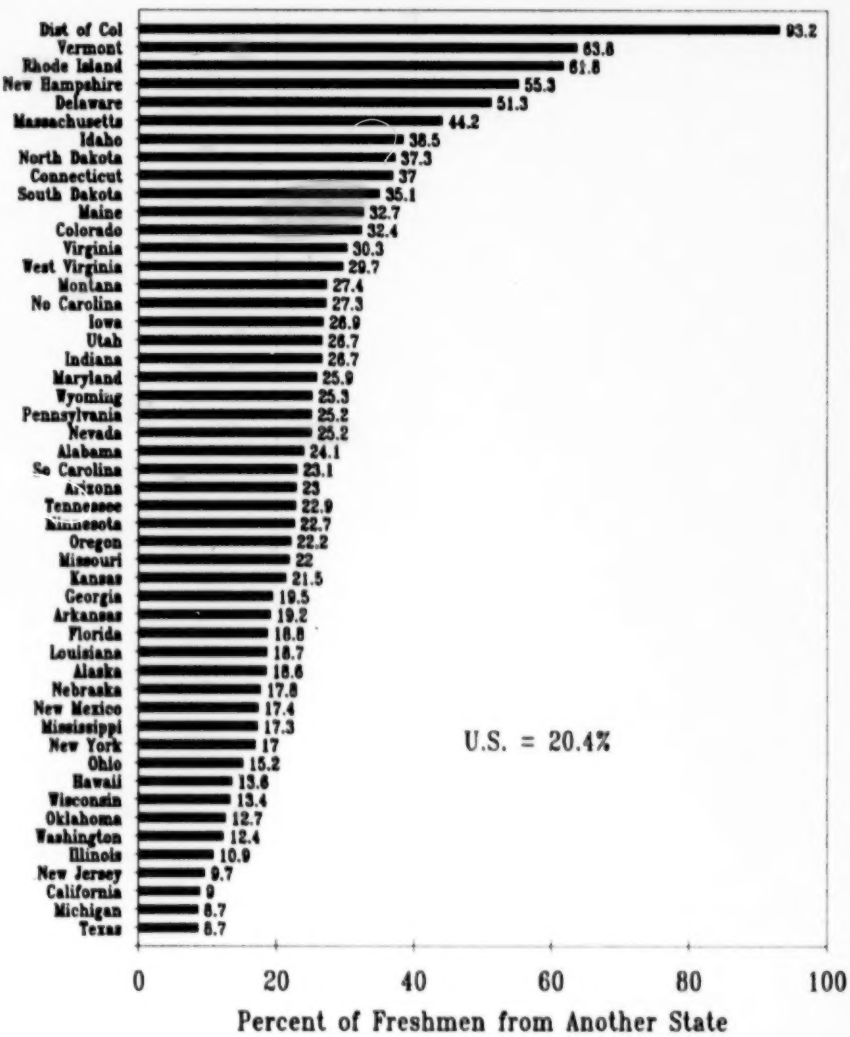
Across the states, the range in the *proportion* of freshmen leaving their state of residence to attend a college elsewhere ranged from 7.6 percent in **North Carolina** to 73.8 percent of the residents of the **District of Columbia**. In addition, **Connecticut** sent over half of its freshmen (51.7%) to other states to enroll.

Generally the states exporting their 1992 high school graduates to other states at the highest rates were small states (with notable exceptions). The **New England** states, in particular, exported at very high rates: all six New England states ranked in the top 13 exporting states. As we will see later, New England has worked to facilitate interstate migration of its students.

The states with the smallest proportions of their freshmen leaving their states to attend college elsewhere were generally the largest states (again with notable exceptions). Not only do many residents of these states have farther to go to leave their state to attend college, but larger states are also likely to offer a broader range of institutional types and programs from which to choose than can the smallest states.

Between 1988 and 1992 the proportion of freshmen in each state that came from another state increased from 17.6 to 20.4 percent of enrollment. At the extremes, the states with the largest *percentage* gains and losses were all small states. The gainers were **Rhode Island, Montana, Vermont, Utah**

College Freshmen Entering State to Attend College, 1992



and **Nevada**. The states with the largest *percentage* declines were **Delaware, Idaho,** and **Wisconsin**. Wisconsin also reported the largest decline in the *numbers* of freshmen entering the state to study, -2343.

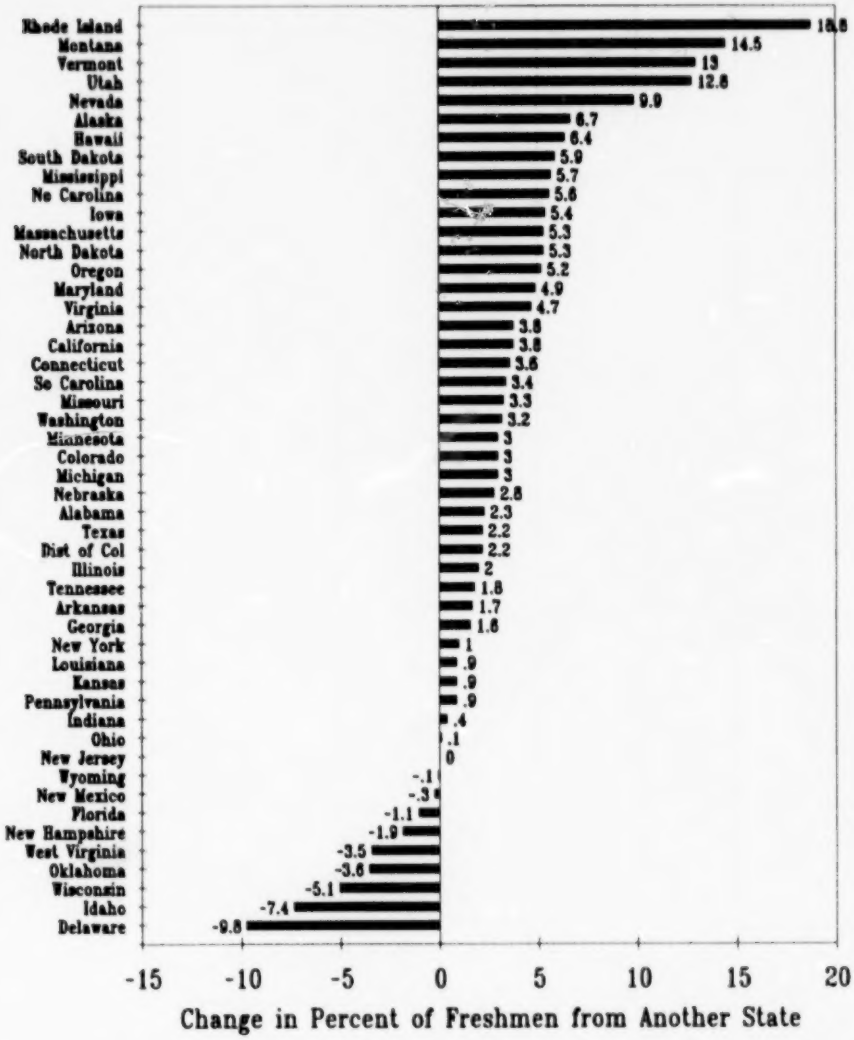
Immigration of College Freshmen

Students leaving their state of residence to attend college enroll in college in another state.

Out of 1,355,000 freshmen enrolled in the states, 277,000 came from other states. This was 20.4 percent of the freshmen enrolled in the states. (Note that some information on state of residence is unknown to institutions and is reported as unknown in the IPEDS system.)

The states enrolling the largest *numbers* of nonresident freshmen were the largest states: Massachusetts

Change in College Freshmen Entering State from Another State to Attend College, 1988 to 1992



(19,354), **Pennsylvania** (18,835), **New York** (17,872), **California** (12,226), **North Carolina** (11,044), and **Virginia** (10,704).

The chart on the previous page shows the *proportion* of freshmen enrolled in each state's higher education institutions that came from another state. The range is very wide, from 8.7 percent of the freshmen in **Texas** to 93.2 percent of the freshmen in the **District of Columbia.**

Most of the states with the largest proportions of nonresident freshmen were the very smallest states, especially the New England states. The most notable exceptions were **Massachusetts, Connecticut, Colorado** and **Virginia.**

Between 1988 and 1992 the proportion of freshmen enrolling from out of state increased from 17.6 to 20.4 percent. However, as is usually the case, some states actually decreased the proportion of out-of-state freshmen enrollment while others increased the proportion substantially.

The states *reducing* the proportion of their freshmen enrollments from other states by the largest percentages were **Delaware** (-9.8%), **Idaho** (-7.4%) and **Wisconsin** (-5.1%).

The states *increasing* the share of their freshmen enrollments from out of state by the largest percentages were **Rhode Island** (18.8%), **Montana** (14.5%), **Vermont** (13.0%), **Utah** (12.8%) and **Nevada** (9.9%).

Net Migration of College Freshmen

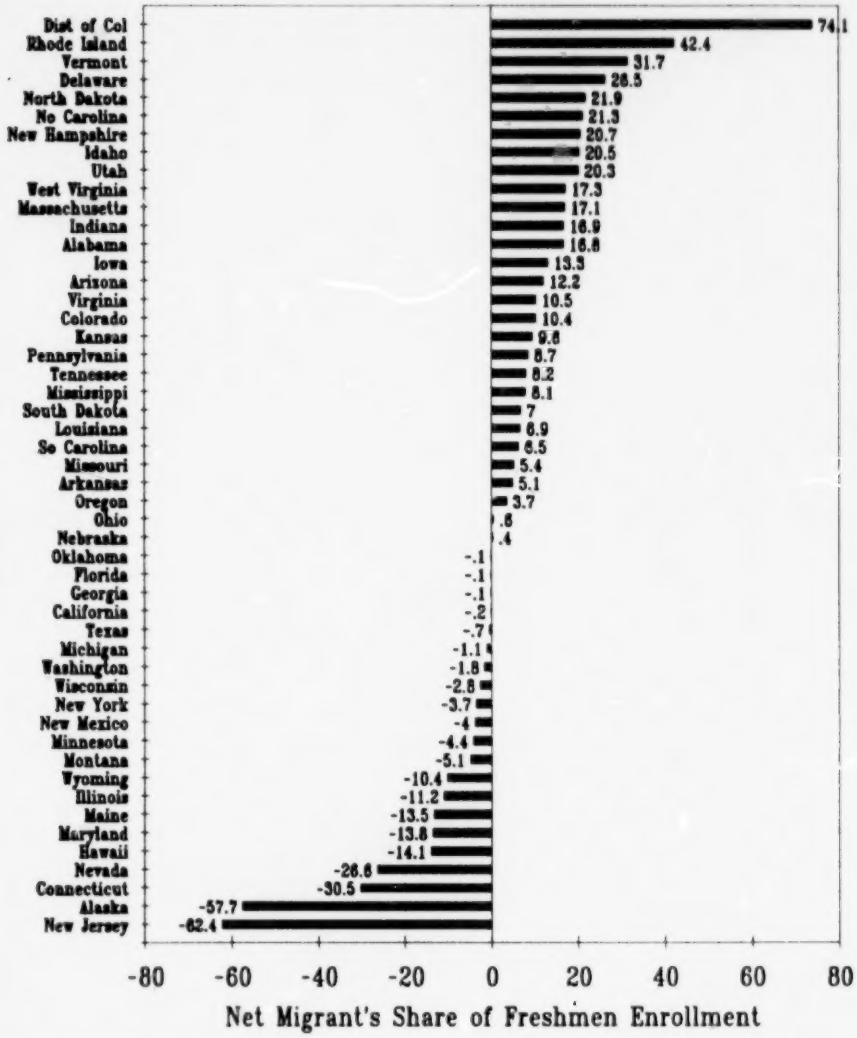
The difference between the number of college freshmen leaving and entering a state is their net migration. Here we calculate each state's net migration as a proportion of freshmen enrollment in the state for 1992.

The results show clear gainers and losers among the states in net migration. The largest gainers--those states that import substantially more freshmen than they export--were the **District of Columbia** (+74.1%), **Vermont** (+63.8%), **Rhode Island** (+61.8%), **New Hampshire** (+55.3%), **Delaware** (+51.3%) and **Massachusetts** (+44.2%).

Those states losing the most college freshmen through net migration in 1992 were **New Jersey** (-62.4%), **Alaska** (-57.7%), **Connecticut** (-30.5%) and **Nevada** (-26.6%).

New Jersey's net loss of college freshmen--2,868 immigrant freshmen less 21,300 emigrant freshmen equals a net loss of 18,462 students--is so large that it stands in a class by itself. By comparison the next four states with the largest net losses of college freshmen -- **Illinois** (-7,310), **Connecticut** (-4,617), **New York** (-3,893) and **Maryland** (-3,102) -- just equaled New Jersey's loss.

Net Migration's Share of College Freshmen Enrollment 1992



Public Policy Considerations

At the federal and especially at the state levels, public policy regarding interstate migration of undergraduate students is of a decidedly mixed mind. Some policies and programs support interstate migration, while others do not. Here we seek to identify some of these contradictions and identify some of the major public policy directions that present policies and programs appear to support.

Federal: On initial examination, federal policies would appear to be supportive of interstate student migration to attend postsecondary education, and in fact they generally are. Federal student aid programs are not limited to one state--each exists for all students in all states. Wherever students enroll, they will have access to all federal student aid resources.

However, not all federal student aid programs that provide aid at one institution will necessarily provide that same aid in another state. The campus-based programs of Title IV of the Higher Education Act provide guidelines for awarding federally-provided campus-based funding for Supplemental Educational Opportunity Grants, College Work-Study, and Perkins Loans. But the decision to award is made on each campus, and the aid that may be awarded at one campus is not portable to another campus.

State: A more mixed picture emerges at the state level. Some states permit taking state funds across state lines for study in another state. But these programs affect few students in the grand scheme of state finance of higher education opportunity.

State funds cross state lines in support of undergraduate educational opportunity in two main forms: *reciprocity agreements* where one state agrees to reimburse another state for some portion of the costs of educating its students in the receiving state's public institutions, and *student financial aid portability* which allows residents of one state to take their state grant assistance to attend a postsecondary institution in another state, usually one that permits its own residents to take their state financial aid to the other state.

The Western Interstate Commission on Higher Education (WICHE) was created in the early 1950s to encourage and assist sharing of facilities and education programs among the western states, especially through its student exchange programs. Since then four student exchange programs have been developed:

- **Professional Student Exchange Program** began in 1953 with medicine, dentistry and veterinary medicine, and now includes 16 professional fields. Migrating students usually pay resident tuition

and sending states pay an additional support fee established by WICHE.

- The **Western Regional Graduate Program** was created in 1981 and includes designated graduate programs in all WICHE states except California. Students pay resident tuition.
- The **Western Undergraduate Exchange** was started in 1988. Immigrant students pay tuition at 150 percent of the resident rate--well below customary nonresident rates. Some 97 institutions in 12 states participate--all except Arizona, California and Washington.

Minnesota on its own has initiated reciprocity agreements with adjacent governments including **Wisconsin, North Dakota, South Dakota** and **Manitoba**.

Other forms of reciprocity exist between states where specific, often very expensive programs, and geographic isolation or proximity are involved. States find it in their interest to band together to send their students to a designated state for education and training under these circumstances.

Interstate portability of state need-based undergraduate financial aid funds exists mainly among New England and some mid-Atlantic states including: **Alaska, Delaware, District of Columbia, Maine, Massachusetts, New Hampshire, Pennsylvania, Rhode Island, Vermont** and **West Virginia**. In addition to these states, many states offer interstate portability of limited scope and usually tiny state student financial aid programs, such as grants for handicapped students, students in isolated parts of a state, etc. Usually, the larger state grant programs are limited to instate institutions only.

Here issues are similar: small states that find it impractical to offer all of higher education's full range of programs find it useful to help state residents emigrating for their academic programs with state grant assistance when and where it is needed.

Benefits of Interstate Migration

Beyond meeting specific student and state needs through interstate migration, there are other significant social benefits from migration that are not generally appreciated in public policy, especially at the state level.

First, the specifics of state finance of higher education suggest that for most states it would be cheaper to send state residents somewhere else to study and only enroll nonresidents in state institutions. Some might call this the **New Jersey** strategy of public higher education finance because New Jersey residents have for decades departed in droves to study elsewhere.

Residents studying in state institutions receive subsidies equivalent to about 70 percent of the cost of their educations, whether they need them or not. Residents who emigrate may not receive these subsidies, although states may encourage their residents to leave by offering financial aid for those that do and need the assistance. Such financial aid is almost invariably less than what it would cost the state to educate the student at one of its own public institutions.

Moreover, nonresidents in public institutions pay something approximating full-cost of their own educations. Nonresident tuition rates average about 2.8 times those paid by state residents. Full-cost paying immigrant students supplement institutional revenues and thereby add breadth and depth to the educational opportunities that public institutions can offer their resident students.

Second, higher education as an industry can provide a not insignificant share of the economic activity of a state, and higher education's contribution helps stabilize state economies during periods of recession.

In 1992, the Current Funds Expenditures (CFE) of public and private higher education averaged about 2.6 percent of Gross State Product (GSP). The range was from 1.0 percent in **Nevada** to 5.4 percent in the **District of Columbia**.

Among the four states with the highest net *immigration* of college freshmen, higher education's CFE averaged 4.0 percent of GSP. Among the four states with the highest net *emigration* of college freshmen, higher education's CFE averaged 1.5 percent of GSP.

Clearly higher education brings good business to those states able to attract more students then they export. What attracts those students is the academic reputation of its 4-year colleges and universities, both public and private, according to the UCLA annual survey of American college freshmen.

Finally, state policies that impede interstate student migration seem to be anachronistic in a world that has moved from being provincial, to national and now to international. Social, political, economic, technological and other forces are redefining our world. Places and events that seemed remote not long ago increasingly affect our daily living.

To continue to isolate the higher education experience for students from the globalization of many things that will touch their adult lives after college can affect their preparation for leadership, responsible and productive roles in the global community. Public policy, particularly at the state level, should carefully consider migration barriers that deny the enriching experience of going away to college.

Reach out . . . *. . . and touch someone*

TRIO Outreaching

Public policy designed to extend opportunity for postsecondary education and training to students from disadvantaged backgrounds takes several forms:

- *The **legal** approach is based on the constitutional provision for equal protection, and includes civil rights, anti-discrimination, and affirmative action legal guidelines and remedies.*
- *The **financial** approach is based on the unequal distribution of family resources with which to pay college attendance costs, and includes grants, loans and employment opportunities.*
- *The **outreach** approach recognizes disparities in environmental factors that are needed to prepare students from disadvantaged backgrounds for postsecondary education and training opportunities.*

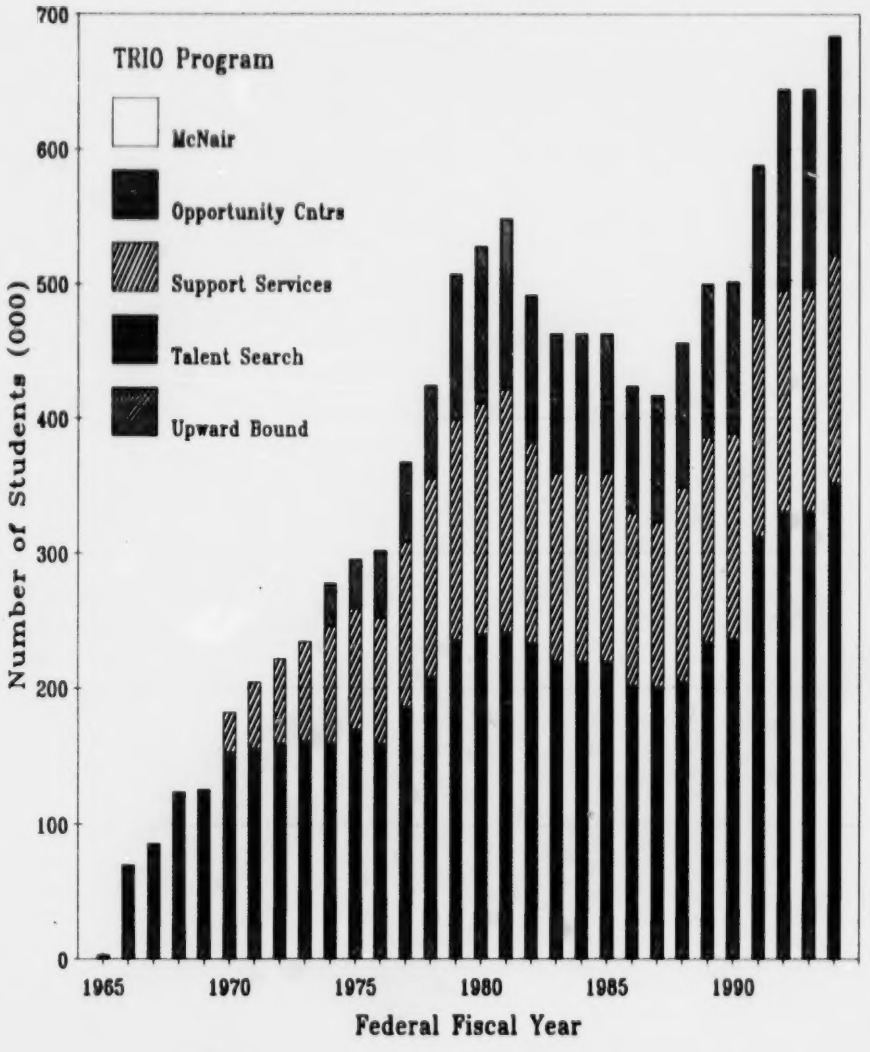
Here we report on a group of five federal outreach programs collectively known as TRIO. Information used in this analysis was provided by the National Council of Educational Opportunity Associations, National Association of Student Financial Aid Administrators, the Division of Student Services of the Department of Education and other sources as noted.

The five TRIO programs are:

- **Upward Bound** was created in the *Economic Opportunity Act of 1964*, as a part of President Johnson's War on Poverty. **Upward Bound-Math/Science** was added in 1990.
- **Talent Search** was created in the *Higher Education Act of 1965*, also a part of the War on Poverty.
- **Student Support Services** was created as Special Services for Disadvantaged Students in the *Higher Education Amendments of 1968*. Recently some of the SSS programs have been targeted on the disabled population.
- **Educational Opportunity Centers** were created in the *Higher Education Amendments of 1972*.
- **Ronald E. McNair Post-Baccalaureate Achievement** was created in the *Higher Education Amendments of 1986*.

The name "TRIO" was first used in the late 1960s to describe the first three federal outreach programs--Upward Bound, Talent Search and Student Support Services. The label stuck, even when other programs were

Number of Students Served in TRIO Outreach Programs
FFY1965 to FFY1994



added later. But the label TRIO applies only to those programs contained in Title IV of the regularly amended Higher Education Act of 1965. There are other outreach programs--private, state, institutional, and even federal--but they will not be examined here.

Like legal and financial approaches to broadening educational opportunity, federal outreach programs are focused on types of students with special needs who have experienced difficulties preparing for, gaining access to or succeeding in postsecondary education. Mainly this refers to students from low family income and first generation students, and students with disabilities.

Congressional Intent

The current law, its legislative history and annual appropriations establish legislative intent and federal policy regarding TRIO outreach. The report of the Senate Committee on Labor and Human Resources stated in November of 1991:

> *Since the passage of the Higher education Act in 1965, the importance of the programs authorized under what is now termed the Special Programs for Students from Disadvantaged Backgrounds or "TRIO" authority has become increasingly recognized. Access and retention services are an essential component of the federal strategy to ensure equal educational opportunity.*
>
> *The Committee believes that the design of the TRIO programs as it has evolved is sound. Widespread support of TRIO programs in communities across the nation, in the Congress, and within the administration confirm that belief . . .*

Later in the same Committee report:

> *Congress has always look[ed] upon the TRIO programs as integrally related to the student financial aid programs. The Committee views the provision of these access and information services as an on-going federal responsibility, a responsibility-like the provision of student financial assistance-shared with the states, with institutions, and with local communities. Given this on-going federal responsibility to provide access and support services, the committee does not view TRIO services as experimental or as demonstration projects.*

The Higher Education Act of 1965 as amended in 1992 now begins Title IV (student assistance), Part A (grants to students in attendance at institutions of higher education), Subpart 2 (federal early outreach and student services programs), Chapter 1 (federal TRIO programs), Section 402A (program authority; authorization of appropriations), (a) (grants and contracts authorized):

> *The Secretary shall, in accordance with the provisions of this chapter, carry out a program of making grants and contracts designed to identify qualified individuals from disadvantaged backgrounds, to prepare them for a program of postsecondary education, to provide support services for such students who are pursuing programs of postsecondary education, to motivate and prepare students for doctoral programs, and to train individuals serving or preparing for service in programs and projects so designated.*

The targeted student populations designated as disadvantaged under the law are a) *first generation college students* neither of whose parents completed a baccalaureate degree, and/or b) *low-income individuals* whose taxable family incomes do not exceed 150 percent of poverty level as defined by the Census Bureau. Further population targeting criteria for each of the five TRIO programs are spelled out in the statutory sections for each program and are noted below.

Appropriations for TRIO programs provide funding for on-site programs throughout the country. For FFY1994 TRIO programs were appropriated $418 million, allocated as follows:

Federal Funding for TRIO Programs and Students Served FFY1994

	Students Served	Funding (000,000)	Dollars per Student
Upward Bound	41,756	$162.0	$3880
Talent Search	310,000	$81.6	$263
Student Support Services	170,000	$134.0	$788
Educ. Opportunity Centers	160,000	$28.6	$179
NcNair Post-Bacc Achieve.	2,000	$9.9	$4950
Totals	683,756	$418.1[1]	$611

[1]Includes sums for staff training.

For federal FY1995, funding for TRIO programs was *increased* 10.5 percent over FFY1994 to $463,000,000. This increase was remarkable in that funding for Pell Grants was *decreased* 1.0 percent, and other federal student aid programs were level funded.

Under the budget constraints self-imposed by Congress, it appears to be no coincidence that the increase in TRIO funding

(+$44 million) is similar to the decrease in Pell funding (-$60 million).

The five federal outreach TRIO programs are described in terms of target populations and services provided in more detail below.

Upward Bound

The oldest of the TRIO programs, **Upward Bound** is designed to generate skills and motivation among secondary level students that are necessary for success in postsecondary education. It was a product of President Johnson's War on Poverty. Upward Bound projects focused on math/science and veterans were added later. In FFY1994 there were 41,735 students in Upward Bound projects.

Target populations are defined by statute. At least two-thirds of Upward Bound youth must be low income students who would be first generation college students. The remainder must have at least one of these characteristics. Students must be between 13 and 18 years of age and have completed the eighth grade, or veterans preparing for entry into postsecondary education. Participants must be determined to be in need of academic support services to successfully pursue postsecondary study.

Required services in an Upward Bound core curriculum are instruction in mathematics through precalculus, laboratory science, foreign language, composition and literature. Permissible services provided to students in Upward Bound include instruction in reading, writing, study skills, mathematics and other subject necessary for success in postsecondary education, personal counseling, academic advice and assistance in secondary school course selection, tutorial services, exposure to cultural events, academic programs, and other activities not usually available to disadvantaged youth, career options exposure particularly careers in which disadvantaged youth are underrepresented, on-campus residential programs and mentoring programs involving teachers.

Students participating in Upward Bound programs may receive stipends of up to $60 per month during the summer, and $40 per month during the rest of the year.

Upward Bound programs are sponsored by higher education institutions, public and private nonprofit agencies, and in exceptional cases by secondary schools. In FFY1995 there are 604 Upward Bound programs located in all 50 states. The states with the largest number of Upward Bound programs and students are **California** and **Texas**.

Talent Search

The **Talent Search** programs enroll almost as many students as do the other four TRIO programs combined. Talent Search is designed to: a) identify qualified youth with potential for education at the postsecondary level and to encourage such youths to complete secondary school and pursue postsecondary education, b) publicize the availability of financial aid for people who pursue postsecondary education, and c) to encourage people who have dropped out of secondary and postsecondary education but have the ability to complete their programs to reenter such programs.

Target populations for Talent Search programs are similar to those of Upward Bound: at least two-thirds from low income families and first generation college students, between ages 11 and 27 years and have completed five years of elementary education.

Permissible services of Talent Search programs include: academic assistance in secondary and college course selection, assistance in completing college admission and financial aid applications, assistance in preparing for college entrance exams, guidance on secondary school reentry for secondary school dropouts, personal and career counseling, tutorial services, exposure to college campuses and cultural events, academic programs and other sites or activities not usually available to disadvantaged youth, workshops and counseling for parents of students served, and mentoring programs involving school teachers and college faculty.

Talent Search programs are sponsored by higher education institutions, public and private nonprofit agencies, and in exceptional cases, secondary schools. Sites chosen must be different from those served by other TRIO programs and accessible to the target populations for each program.

For 1994-95 there are Talent Search projects at 321 sites in 49 states--all except New Hampshire--with the largest number of students and projects in **California** and **Alabama**.

Student Support Services

The purposes of programs of **Student Support Services** are to: a) increase college retention and graduation rates for eligible students, b) increase the transfer rates of eligible students from 2-year to 4-year institutions, and 3) to foster an institutional climate supportive of the success of low income and first generation college students and students with disabilities.

Target populations for Student Support Services programs are either persons with disabilities and/or students from low

TRIO Projects by State, 1993-94

State	<-----Upward Bound----> Students Served	Sites	Funding (000)	<----Talent Search----> Students Served	Sites	Funding (000)	<Student Support Servs> Students Served	Sites	Funding (000)	<Educ Opportunity Cntr> Students Served	Sites	Funding (000)	<McNair Post-Bacc Achv> Students Served	Sites	Funding (000)	<--All TRIO Programs--> Students Served	Sites	Funding (000)
Alabama	1,680	26	$5,858	16,725	19	$3,592	6,148	33	$6,009	7,500	1	$762	40	2	$275	32,093	81	$16,496
Alaska	175	2	$568	500	1	$312	225	1	$215	2,200	1	$377	0	0	$0	3,100	5	$1,472
Arizona	455	7	$1,709	1,900	3	$451	2,188	8	$1,431	4,600	2	$653	0	0	$0	9,143	20	$4,244
Arkansas	727	10	$2,444	5,560	6	$1,414	3,440	15	$2,731	3,000	2	$456	45	3	$282	12,772	36	$7,327
California	3,398	47	$13,363	24,535	22	$5,192	11,045	42	$8,484	0	0	$0	151	6	$830	39,129	117	$27,869
Colorado	715	11	$2,619	5,075	7	$1,016	2,855	14	$2,426	8,250	3	$1,021	0	0	$0	16,895	35	$7,082
Connecticut	485	8	$1,568	800	3	$213	790	3	$540	3,000	1	$504	24	1	$135	5,099	16	$2,960
Delaware	325	6	$1,358	2,000	3	$506	830	4	$633	0	0	$0	0	0	$0	3,155	13	$2,497
Dist of Col	290	4	$1,057	15,650	2	$2,632	800	3	$630	3,000	1	$574	0	0	$0	19,740	10	$4,893
Florida	845	10	$2,841	4,010	7	$1,105	2,965	15	$2,565	2,500	2	$419	70	3	$444	10,390	37	$7,374
Georgia	1,490	18	$4,703	7,125	10	$2,036	1,975	12	$2,101	9,500	5	$1,446	50	2	$290	20,140	47	$10,576
Hawaii	290	5	$1,255	800	2	$231	1,200	5	$1,026	1,050	1	$222	0	0	$0	3,340	13	$2,734
Idaho	275	4	$948	3,000	3	$754	755	4	$735	0	0	$0	0	0	$0	4,030	11	$2,437
Illinois	1,755	24	$5,965	11,300	18	$2,913	6,514	28	$5,075	1,200	1	$185	64	2	$294	20,833	73	$14,432
Indiana	750	7	$2,195	3,780	6	$1,125	3,251	11	$2,073	2,000	1	$231	60	2	$303	9,841	27	$5,927
Iowa	850	11	$3,039	6,975	7	$1,428	2,980	14	$2,385	2,000	1	$256	0	0	$0	12,805	33	$7,108
Kansas	305	5	$1,348	3,750	5	$841	2,975	12	$2,141	0	0	$0	15	1	$135	7,045	23	$4,465
Kentucky	1,158	15	$3,867	9,025	11	$2,212	3,185	17	$2,860	3,750	2	$604	0	0	$0	17,118	45	$9,543
Louisiana	1,505	17	$4,560	9,225	9	$2,204	4,258	14	$3,358	1,000	1	$214	40	2	$275	16,028	43	$10,611
Maine	360	5	$1,395	1,050	1	$322	1,724	7	$1,410	2,700	1	$422	16	1	$160	5,850	15	$3,709
Maryland	789	11	$2,933	3,050	5	$856	3,115	14	$2,575	3,000	1	$624	120	4	$618	10,074	35	$7,606
Massachusetts	915	13	$3,289	6,250	7	$1,558	4,080	16	$3,202	7,200	1	$695	35	2	$277	18,480	39	$9,021
Michigan	1,775	24	$6,358	7,500	10	$1,980	4,845	19	$3,804	1,300	2	$287	45	2	$280	15,465	57	$12,709
Minnesota	1,020	14	$3,566	3,350	4	$795	4,280	17	$3,662	1,750	1	$244	40	1	$161	10,440	37	$8,428
Mississippi	895	11	$2,822	3,900	4	$756	3,056	13	$2,093	0	0	$0	0	0	$0	7,851	28	$5,671
Missouri	560	8	$1,957	3,350	5	$666	3,047	11	$2,103	3,450	2	$538	76	3	$435	10,483	29	$5,699
Montana	455	6	$1,389	1,850	2	$329	2,610	13	$2,241	2,000	1	$368	40	1	$92	6,955	23	$4,419
Nebraska	170	3	$697	1,550	2	$421	2,894	10	$1,811	0	0	$0	0	0	$0	4,614	15	$2,929
Nevada	250	3	$819	500	1	$170	515	2	$368	0	0	$0	0	0	$0	1,265	6	$1,357
New Hampshire	150	2	$626	1,460	1	$322	540	3	$535	0	0	$0	60	1	$322	2,210	7	$1,805
New Jersey	948	11	$3,246	5,150	6	$1,082	2,875	13	$2,478	0	0	$0	45	1	$161	9,018	31	$6,967
New Mexico	495	6	$1,577	2,000	5	$756	1,796	6	$1,382	3,000	2	$532	20	1	$130	7,311	20	$4,377
New York	1,707	22	$6,478	12,395	14	$2,718	10,557	37	$7,461	1,200	1	$218	178	6	$859	26,037	80	$17,734
North Carolina	1,404	18	$4,322	7,250	10	$1,664	6,803	30	$5,059	4,575	2	$587	47	2	$278	20,079	62	$11,910
North Dakota	265	3	$684	1,785	2	$415	1,330	7	$1,198	1,000	1	$201	45	2	$291	4,425	15	$2,789
Ohio	1,677	21	$5,585	4,350	4	$940	3,730	12	$2,640	3,150	3	$400	0	0	$0	12,907	40	$9,565
Oklahoma	990	16	$3,824	5,475	9	$1,515	2,995	12	$2,573	7,900	4	$1,242	30	1	$137	17,390	42	$9,291
Oregon	315	6	$1,350	1,800	3	$510	1,600	7	$1,445	0	0	$0	0	0	$0	3,715	16	$3,305
Pennsylvania	1,759	23	$6,098	7,795	8	$3,224	3,845	20	$3,330	2,500	2	$367	40	2	$275	15,939	55	$13,294
Puerto Rico	1,145	14	$3,164	11,911	8	$1,881	6,210	21	$4,314	2,500	1	$280	43	2	$313	21,809	46	$9,952
Rhode Island	130	1	$385	4,250	1	$476	600	2	$436	4,000	1	$419	0	0	$0	8,980	5	$1,716
South Carolina	1,195	18	$4,040	10,575	11	$2,351	2,240	13	$2,174	2,000	2	$288	20	1	$152	16,030	45	$9,005
South Dakota	145	2	$505	1,000	1	$236	690	4	$656	0	0	$0	0	0	$0	1,835	7	$1,397
Tennessee	1,385	18	$4,189	6,700	8	$1,412	2,182	12	$1,846	7,500	4	$1,110	58	2	$310	17,825	44	$8,867
Texas	2,665	36	$9,203	17,570	15	$3,280	9,230	33	$6,437	10,600	6	$1,529	64	3	$436	40,129	93	$20,885
Utah	655	8	$1,976	3,675	5	$852	1,710	8	$1,527	0	0	$0	0	0	$0	6,040	21	$4,355
Vermont	195	3	$785	1,250	1	$262	1,705	9	$1,646	2,000	1	$278	0	0	$0	5,150	14	$2,971
Virginia	995	13	$3,250	6,375	8	$1,577	3,870	18	$3,421	2,800	1	$283	40	2	$265	14,080	42	$8,796
Washington	425	7	$1,878	650	1	$218	3,145	15	$3,034	2,500	1	$332	21	1	$129	6,741	25	$5,591
West Virginia	665	9	$2,275	1,150	2	$218	1,790	9	$1,439	0	0	$0	0	0	$0	3,605	20	$3,932
Wisconsin	1,000	15	$3,644	2,700	4	$661	5,516	24	$4,374	0	0	$0	105	3	$446	9,321	46	$9,125
Wyoming	140	2	$514	2,000	1	$218	630	2	$456	1,866	1	$287	30	1	$140	4,666	7	$1,615
TOTALS	**45,112**	**609**	**$156,088**	**283,351**	**313**	**$64,818**	**164,134**	**694**	**$130,548**	**135,041**	**67**	**$19,455**	**1,777**	**69**	**$9,930**	**629,415**	**1,752**	**$380,839**

income families who are first generation college students. Only higher education institutions may sponsor Student Support Services programs.

Permissible services of Student Support Services programs include: instruction in reading, writing, study skills, mathematics and other subjects necessary for success, personal counseling, academic advice and assistance in course selection, tutorial services, counseling and peer counseling, exposure to cultural events and academic programs not usually available to disadvantaged students, career options exposure and experiences, activities related to admission and financial aid assistance for graduate and professional programs, activities related to admission and financial aid assistance for students in 2-year institutions wanting to transfer to 4-year institutions, and mentoring programs involving college faculty or upper class students.

Among the several requirements for colleges and universities receiving federal funding for Student Support Services programs is that each enrolled student will be offered sufficient financial assistance to meet the student's full financial need.

For 1994-95 there are Student Support Services programs at 694 sites in all 50 states. The states with the largest numbers of students are **California** and **New York**.

Educational Opportunity Centers

The **Educational Opportunity Centers** program provides assistance and information to adults who seek to enter or continue a program of postsecondary education. The statute says such centers will provide information on financial and academic assistance to individuals who want to pursue a program of postsecondary education, and to provide assistance to such persons for admission including preparing necessary applications for use by admissions and financial aid officers.

Target populations for EOC services are persons who are from low family income backgrounds and/or first generation college students. Persons must also be at least 19 years old.

Permissible services of Educational Opportunity Centers include public information campaigns that inform target populations about opportunities for postsecondary education and training, academic advice and assistance in course selection, assistance in completing college admission and financial aid applications, assistance in preparing for college entrance examinations, guidance on school reentry for secondary school dropouts, personal counseling, tutorial services, career workshops and counseling, and mentoring programs involving secondary school teachers, college faculty and/or students.

For 1994-95 there are Educational Opportunity Centers at 70 sites in 37 states. The states with the largest numbers of EOC clients are **Georgia** and **Texas**.

McNair Post-Baccalaureate Achievement

The **Ronald E. McNair Post-Baccalaureate Achievement** program provides opportunities for undergraduate and graduate students from disadvantaged backgrounds to prepare for doctoral study.

Target populations are students enrolled in college in degree programs who are from low income and first generation backgrounds or groups underrepresented in graduate education.

Permissible services include opportunities for research or other scholarly activities at the institution or at graduate centers designed to provide students with effective preparation for doctoral study, summer internships, seminars and other educational activities, tutoring, academic counseling, preparation for admission and financial aid application for graduate programs, mentoring programs involving college faculty and students, and exposure to cultural events and academic programs not normally available to students from disadvantaged backgrounds.

Institutions applying for McNair funding are evaluated according to the quality of research or other scholarly activities in which students will be involved, the level of faculty involvement, and the institution's plan for identifying and recruiting participants including students enrolled in authorized projects.

Students participating in McNair programs may receive a stipend of up to $2400 per year, plus costs of summer tuition, summer room and board, and transportation to summer programs.

In 1994-95 there are 69 projects in 32 states. **New York** and **California** serve the largest numbers of McNair students.

TRIO in the States

There are TRIO outreach programs in all 50 states and the associated outlying areas, including and especially **Puerto Rico**. The number of students served range from 1265 in **Nevada** to over 39,000 in **California**.

In its 1991 report to the Senate, the Committee on Labor and Human Resources noted:

Presently, fewer than 5% of eligible youth and adults are served (by TRIO programs).

For that reason Congress appropriated increased funding to enroll a larger share of the eligible population.

We wondered how states differ in their commitment to outreach programs. States differ on every other measure of support for educational opportunity, so we see no reason to expect 50 different states to have the same level of commitment to outreach services to their students from disadvantaged backgrounds.

We examined several approaches to measuring state commitment to outreach through TRIO programs. Without an analytical effort that exceeds our resources--one that measures target populations on a state-by-state and program-by-program basis--we cannot provide any definitive measure. But we tried. So here goes with an imperfect measure of state outreach through TRIO programs.

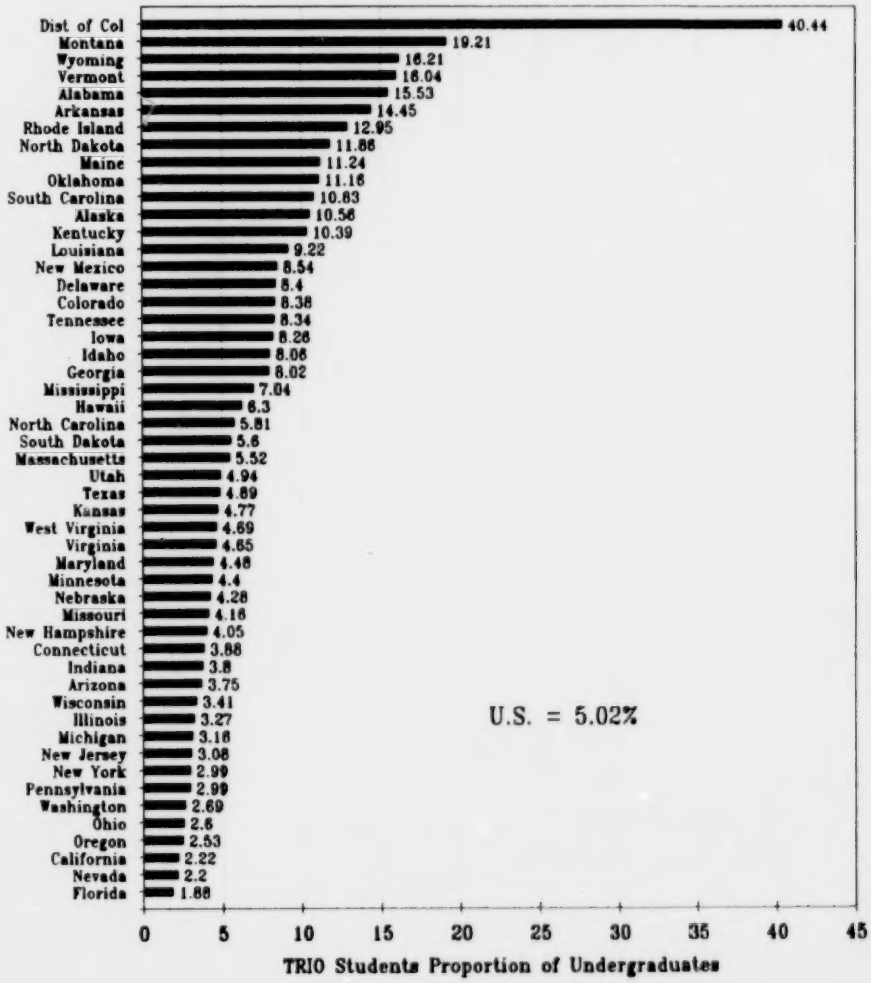
The chart on this page measures TRIO outreach efforts by state by dividing the number of students enrolled in TRIO programs by the undergraduates in higher education in each state. For the U.S., TRIO clients amounted to 5.0 percent of undergraduate collegiate enrollment in the U.S. (While this number is remarkably similar to the Senate Committee on Labor and Human Resources' estimate that TRIO programs serve less than 5 percent of eligible populations, this similarity is probably more accidentally than causally related.)

At the extremes on this chart, the TRIO/enrollment ratio probably reflects state outreach efforts through TRIO programs. That is to say, the **District of Columbia, Montana, Wyoming, Vermont, Alabama** and **Arkansas** almost certainly are making greater outreach efforts than are states in the middle of this ranking. **Florida, Nevada, California, Oregon, Ohio** and **Washington** are probably making less than average outreach efforts. But a better estimate remains to be made, one that adds state and private outreach efforts to TRIO efforts in each state, and controls for the size of the disadvantaged populations that are the target of TRIO programming.

Finally, we view TRIO and all outreach activity as a form of *in loco parentis* family intervention. The types of students who are most successful preparing for, gaining access to and succeeding in higher education are typically those with college educated parents making large incomes. Students who come from families lacking one or both of these typically are less successful in college.

Outreach seeks to supplement individual and family limitations where people lack experience and resources to prepare for college. Like the telephone company advertisement once said--"Reach out and touch someone"--outreach can bring information, experience, encouragement, direction, resources and other ingredients together and alter the course of a person's life.

TRIO Outreach Efforts by State



Converting Education . . . to Income . . . to Housing

What Kind of a House Will YOU Live In?

Children moving through their junior high school and senior high school years of secondary education face many choices that will influence the standard of living at which they will live as adults. The courses they choose and the effort they put into them:

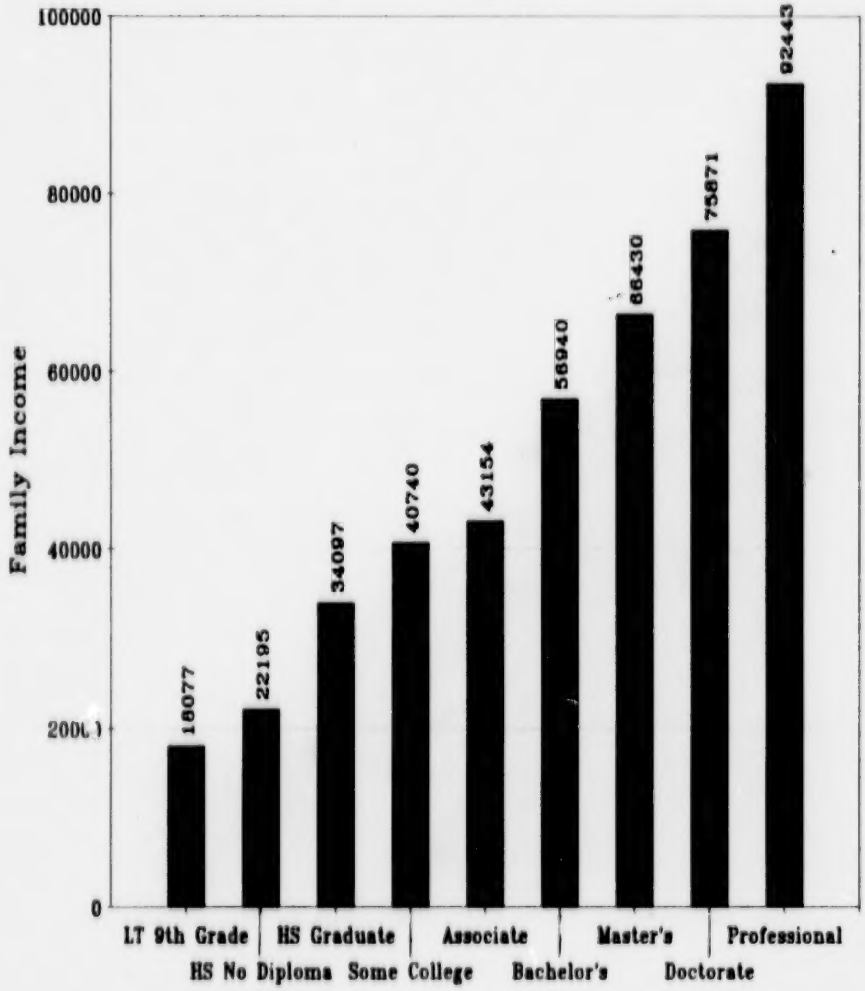
- *will be reflected in the academic records they present to colleges at the time of college admission.*
- *will be reflected on the SAT and ACT test scores that colleges use to sort among their applicants for admission.*
- *will help identify their interests and talents that will ultimately becomes bases for career selections.*
- *will help establish work habits, organizational skills, and other habits, attitudes and expectations that will guide them beyond high school.*

*If children choose college and are successful in their educational pursuits, many conditions in their adult lives will be enriched. One of these is income and the access to better housing that higher levels of education provide. Here we illustrate an inexpensive outreach project being developed by **OPPORTUNITY** for Iowa junior high school and senior high school students.*

The Education-Income Link

Income data reported by the Census Bureau in many reports from the Current Population Survey and the Survey of Income and Program Participation consistently report the very strong relationship between educational attainment and income. Whether for individuals, households or families, greater levels of educational attainment yield--on average--

Median Family Income
by Educational Attainment of Householder
1992



significantly greater levels of income.

This relationship has persisted over many decades. But the relationship has strengthened since the early 1970s. For example, during the last twenty years constant dollar family incomes for families headed by high school graduates have *decreased* by about 18 percent (from an already lower base) while median family income for those headed by those with four years of college decreased by about 2 percent (from a far higher base).

Expressed another way, families headed by persons with four years of college earned 39 percent more than

What kind of a house will YOU live in?

Educational Attainment of Head of Family	Median Annual Family Income	Median Monthly Family Income	Monthly House Payments: Principle Interest	Taxes Insurance	Mortgage Insurance	Total	Mortgage	Down Payment	Maximum House Price
Less than 9th grade	$18,077	$1506	$373	$56	$26	$455	$42,500	$2200	$44,700
High school drop-out	22,195	1850	458	69	32	559	52,200	2700	54,900
High school graduate	34,097	2841	703	105	49	857	80,100	4200	84,300
Some college	40,740	3395	841	126	59	1026	95,800	5000	100,800
Associate degree	43,154	3596	891	134	62	1087	101,500	5300	106,800
Bachelor's degree	56,940	4745	1175	176	83	1434	133,900	7000	140,900
Master's degree	66,430	5536	1371	206	96	1673	156,200	8200	164,400
Doctor's degree	75,871	6323	1566	235	110	1911	178,400	9400	187,800
Professional degree	92,443	7704	1907	286	134	2327	217,300	11,400	228,700

Notes:

1. Median family income data for 1992 from Census Bureau's Current Population Survey, *Money Income of Households, Families, and Persons in the United States: 1992*, Series P60-184, Table 14.
2. Total monthly house payment is about 30 percent of monthly family income. Mortgage is for 30 years at 10 percent interest. Taxes and homeowner's insurance is 1.5 percent of house price. Private mortgage insurance is 0.74 percent of mortgage.
3. Maximum mortgage assumes no excessive debt for car loans, student loans or credit card balances.
4. Down payment of 5 percent.

Education: High school dropout
Family income: $22,195
House price: $54,900

Education: High school graduate
Family income: $34,097
House price: $84,300

Education: Bachelor's degree
Family income: $56,940
House price: $140,900

Education: Professional degree
Family income: $92,443
House price: $228,700

those headed by high school graduates in 1956, 40 percent more in 1973, 53 percent more by 1983, and 67 percent more by 1992.

Reaching Out to Secondary Level Students

Any parent--including this one--understands the challenges of communicating to our children the importance of doing well in school in preparation for college and the opportunities in life that college educated adults have access to.

The Iowa effort is an attempt to convey to students in secondary education the benefits of continuing their educations after high school and preparing for that opportunity. The approach is visual and dramatic.

Converting Education to Housing

The differences in income that result from differences in educational attainment can be converted to housing through straightforward mortgage lending criteria. The lending rules we have used are the following:

- Monthly housing costs--loan principal, interest, real estate taxes, homeowner's insurance, and mortgage insurance--should not exceed 28 to 33 percent of monthly income. We have used about 30 percent in our calculations. The maximum mortgage assumes no excessive debt for car loans, student loans or credit card balances.
- Down payment is 5 percent of house price. Mortgage is for 30 years at 10 percent interest. Monthly real estate taxes and homeowner's insurance are 1.5 percent of house price. Private mortgage insurance is 0.74 percent of mortgage.

These rules may vary from one community or lender to another. These guidelines should be adjusted to reflect local housing market and lending conditions. The maximum house price that results from these lending rules is in the attached table.

For example, the median family income for a family headed by a high school graduate was $34,097 in 1992. If 28 to 33 percent of monthly income is available for housing, this would be make available between $796 and $938 for monthly housing payments. At 30 percent for housing, this would convert to a mortgage of $80,100, which, when added to a 5 percent down payment, produces a maximum house price of $84,300. Similar calculations for a family headed by a person with a bachelor's degree would yield a maximum house price of $140,900. A family headed by a person with a doctor's degree could afford a house of $187,800. A family headed by a person with a professional degree could afford a house costing $228,700 under these lending rules.

Getting the Message Across

Prices of housing vary substantially from one community to another. Roughly speaking, where incomes are highest housing will cost the most, and where incomes are lowest similar housing will cost less.

To illustrate the point of the analysis--and *illustrate* is the key word when we are targeting students in junior and senior high schools--we asked local realtors to select photographs of representative housing at the maximum house prices calculated for each level of educational attainment/median family income/mortgage from those in a representative American city. These photographs resulted from their selection.

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